

Please type a plus sign (+) inside this box → ☐

PTO/SB/05 (4/98)
Approved for use through 09/30/2000. OMB 0651-0032
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 C.F.R. § 1.53(b))

Attorney Docket No. 566.38876X00

First Inventor or Application Identifier Kazuhiro KUSAMI

Title SERVICE RESERVATION SYSTEM

Express Mail Label No.

APPLICATION ELEMENTS
See MPEP chapter 600 concerning utility patent application contents

ADDRESS TO: Assistant Commissioner for Patents
Box Patent Application
Washington, DC 20231

1. ☒ * Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
2. ☒ Specification [Total Pages 58]
(preferred arrangement set forth below)
- Descriptive title of the Invention
 - Cross References to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to Microfiche Appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
3. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 26]
4. Oath or Declaration [Total Pages 1]
- a. ☐ Newly executed (original or copy)
- b. ☐ Copy from a prior application (37 C.F.R. § 1.63(d))
(for continuation/divisional with Box 16 completed)
- i. ☐ **DELETION OF INVENTOR(S)**
Signed statement attached deleting
inventor(s) named in the prior application,
see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b).

5. ☐ Microfiche Computer Program (Appendix)
6. Nucleotide and/or Amino Acid Sequence Submission
(if applicable, all necessary)
- a. ☐ Computer Readable Copy
- b. ☐ Paper Copy (identical to computer copy)
- c. ☐ Statement verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

7. ☐ Assignment Papers (cover sheet & document(s))
8. ☐ 37 C.F.R. § 3.73(b) Statement of Power of Attorney
(when there is an assignee)
9. ☐ English Translation Document (if applicable)
10. ☐ Information Disclosure Statement (IDS)/PTO-1449 [Copies of IDS Citations]
11. ☐ Preliminary Amendment
12. ☒ Return Receipt Postcard (MPEP 503)
(Should be specifically itemized)
13. ☐ * Small Entity Statement(s) filed in prior application
(PTO/SB/09-12) Status still proper and desired
14. ☐ Certified Copy of Priority Document(s)
(if foreign priority is claimed)
15. ☒ Other: FIGS. 1-26

* NOTE FOR ITEMS 1 & 13 IN ORDER TO BE ENTITLED TO PAY SMALL ENTITY FEES, A SMALL ENTITY STATEMENT IS REQUIRED (37 C.F.R. § 1.27), EXCEPT IF ONE FILED IN A PRIOR APPLICATION IS RELIED UPON (37 C.F.R. § 1.28).

16. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No. _____ / _____

Prior application information: Examiner _____ Group / Art Unit: _____

For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 4b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

17. CORRESPONDENCE ADDRESS

☒ Customer Number or Bar Code Label

020457

or ☐ Correspondence address below

(Insert Customer No. or Attach bar code label here)

Name

Address

City

State

Zip Code

Country

Telephone

Fax

Name (Print/Type)

Melvin Kraus

Registration No. (Attorney/Agent)

22,466

Signature

Melvin Kraus

Date

8-10-00

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

used to supply network-utilized services, to users poses problems.

For example, a service for supplying the contents of data, which are formed of video data, such as a motion picture, received from a provider thereof and accumulated, and supplied to plural users in accordance with the users' requests by utilizing a network will be discussed. The users' requests are concentrated on a time zone, for example, 20:00-21:00 during which many ordinary people enjoy a motion picture.

10 If a necessary amount of resources for a network for transmitting the contents of data to users are prepared in accordance with a time zone on which the users' requests for reservation are concentrated, an amount of resources which are not used in other time zones will increase, so that a general
15 resource utilization efficiency will decrease. On the other hand, if only a smaller amount of resources are prepared, the resource utilization efficiency is improved but the number of users' requests for reservation denied in a time zone on which the user's requests for reservation are concentrated will
20 increase. This will cause the degree of users' satisfaction concerning the services to lower. Especially, the utilization of the services comes to be denied at the very time at which a request for reservation is actually made, i.e., at the very time at which the users actually utilize the services.
25 Therefore, the degree of dissatisfaction concerning the

services of the users who made a plan premising that they utilize the services will increase.

Therefore, in order to prevent a decrease in the degree of users' satisfaction concerning the services while heightening the resource utilization efficiency, a method of taking users' reservations in advance, and supplying services within the range of the reservations practically taken has been proposed. According to such a method of taking reservations in advance, the users can know in advance whether the services can be utilized or not, and make a plan in accordance with the results of the practicing of the method. Therefore, the users' dissatisfaction caused by the denial of the utilization of the services at the very time at which the users actually desire to utilize the services can be eliminated.

In order to take such reservations, it is necessary to limit the number of the reservations so that the amount of resources used to supply the reserved services does not exceed that of the utilizable resources. In order to limit the number of reservations, it is necessary to discriminate the reservations to be taken and those to be denied from each other in accordance with a certain priority item.

The methods of determining preferential reservations include a method of giving priority to earlier-accepted reservations, and such a method as is defined in the techniques disclosed in Japanese Patent Laid-Open No. 292987/1996, i.e.

a method having the steps of determining the degree of importance of the reservations on the basis of the personal information on the users, and taking reservations with priority given to the reservations of higher degrees of importance.

5

SUMMARY OF THE INVENTION:

When earlier-accepted reservations are taken preferentially in a method in which reservations are taken in advance to supply services within the range of the reservations taken, later-accepted reservations of higher degrees of importance are denied in some cases. In this case, the dissatisfaction of the users the reservations of whom have been denied in spite of the high importance thereof increases.

According to the method of preferentially taking reservations of higher degrees of importance, the necessity of denying already-accepted reservations occurs so as to accept requests, which are made afterward, for reservations the degrees of importance of which are higher than those of the already-accepted reservations. In such a case, the dissatisfaction of users whose reservations once accepted have been denied increases.

In order to improve the resource utilization rate, it is necessary that the utilization of services be leveled with respect to both the time and resources. However, when the determination of the contents of the reservations of services

000789-0855960

Therefore, the present invention aims at optimizing the
5 resource utilization rate and the degree of satisfaction of
users concerning the utilization of services.

The present invention provides a service reservation
15 system capable of eliminating these problems, and adapted to
accept from users requests for reservations for utilizing
services supplied by using resources.

5

to deny the acceptance of the service booking requests iff the degree of importance of the service booking requests determined by the importance degree determining element is lower than a predetermined importance degree determined by a predetermined standard, and to permit the acceptance of the service booking requests if the degree of importance of the service booking requests determined by the importance determining element is not lower than the predetermined degree, when a load level of resources used for supplying object services of the service booking requests accepted by the acceptance element and determined depending upon the reservation condition managed by the reservation condition management element is higher than a predetermined level.

The resources referred to above include resources in every meaning of the word which are used in the supplying of services, such as time resources, physical resources and logical resources.

According to the service supplying system, a predetermined load range of resources is secured for the service booking requests of a higher degree of importance. Therefore, the service booking requests of a high degree of importance can be accepted at a high probability without canceling the service booking requests of a low degree of importance after the requests have once been accepted.

According to another aspect of the present invention,

the service reservation system is provided with a reservation condition management element adapted to manage accepted reservations of services as reservation condition, a first acceptance element adapted to accept service booking requests from users, a substitute reservation plan preparation element adapted to prepare at least one substitute reservation plan, which is obtained by at least partially altering the contents of reservation in the reservation booking requests accepted by the first acceptance element, in such a manner that a general resources utilization efficiency increases, in accordance with the contents of the reservation and a load level of resources used for the supplying of the object services of the reservation booking requests, said load level being determined by the reservation condition managed by the reservation condition management element, a substitute reservation plan presentation element adapted to present at least one substitute reservation plan prepared by the substitute reservation plan preparation element, to the users, a second acceptance element adapted to accept the users' selection of the at least one substitute reservation plan, and a reservation element adapted to accept as reservation the substitute reservation plan whose selection is accepted by the second selection acceptance element.

According to the service reservation system, a substitute reservation plan is prepared which enables a general resource utilization efficiency to increase in accordance with the load

Fig.2 is a block diagram showing a concrete example of the configuration of the embodiment of the service supply system according to the present invention;

Fig.3 is a block diagram showing the configuration of an electronic computer capable of being used as hardware of each computer in the embodiment of the present invention;

Fig.4 illustrates a processing sequence of each part in a reserved service selection receiving operation of an embodiment of the present invention;

Fig.5 is a flow chart showing a procedure of a processing operation of a request for service analysis unit in a service synopsis providing sequence in the embodiment of the present invention;

Fig.6 is a diagram showing contents of a users' attribute table in the embodiment of the present invention;

Fig.7 is a diagram showing contents of a service attribute table in the embodiment of the present invention;

Fig.8 is a diagram showing a screen displaying the synopsis of reservation-acceptable services in the embodiment of the present invention;

Fig.9 is a flow chart showing a procedure of a processing operation of the request for service analysis unit in a service selection accepting sequence in the embodiment of the present invention;

Fig.10 is a diagram showing an initial screen for the

Fig.11 is a diagram showing a processing sequence in each part in a service reservation operation of the embodiment of the present invention;

Fig.12 is a flow chart showing a procedure of a processing operation of a service reservation unit in the tentative service reservation sequence in the embodiment of the present invention;

Fig.13 is a flow chart showing a procedure of a processing
10 operation of a service reservation management computer in the
tentative service reservation sequence in the embodiment of
the present invention;

Fig.14 is a flow chart showing the procedure of a processing operation of a service resources allotment management computer in a tentative service reservation sequence in the embodiment of the present invention;

Fig.15 is a diagram showing a service operating policy in the embodiment of the present invention:

Fig.16 is a diagram showing contents of a data accumulation
20 resource management table in the embodiment of the present
invention;

Fig.17 is a diagram showing contents of a data producing resources management table in the embodiment of the present invention;

25 Fig.18 is a diagram showing contents of a reservation

1. Demographic characteristics	
N	100
Age (mean)	25.5
Gender	
Male	55
Female	45
Ethnicity	
White	60
Black	20
Hispanic	15
Other	5
Education	
High school	30
College	40
Postgraduate	30
Occupation	
Student	40
Professional	20
Service	30
Unemployed	10
Income	
< \$10,000	20
\$10,000 - \$20,000	30
> \$20,000	50
Health status	
Good	60
Fair	20
Poor	20
Smoking status	
Smoker	30
Non-smoker	70
Alcohol consumption	
Regular	20
Occasional	30
Never	50
Marital status	
Single	40
Married	30
Divorced	10
Widowed	20
Family size	
1-2	30
3-4	40
5+	30
Health insurance	
Medicaid	20
Medicare	10
Private	70
Healthcare utilization	
Physician visits (past year)	5
Emergency room visits (past year)	2
Hospitalizations (past year)	1
Prescription use (past year)	10
Healthcare costs (past year)	\$500
Healthcare satisfaction	
Satisfied	60
Dissatisfied	40
Healthcare access	
Accessed	70
Not accessed	30
Healthcare quality	
Good	60
Fair	20
Poor	20
Healthcare equity	
Equitable	60
Not equitable	40
Healthcare transparency	
Transparent	60
Not transparent	40
Healthcare accountability	
Accountable	60
Not accountable	40
Healthcare effectiveness	
Effective	60
Not effective	40
Healthcare efficiency	
Efficient	60
Not efficient	40
Healthcare safety	
Safe	60
Not safe	40
Healthcare security	
Secure	60
Not secure	40
Healthcare privacy	
Private	60
Not private	40
Healthcare integrity	
Integrity	60
Not integrity	40
Healthcare trust	
Trusted	60
Not trusted	40
Healthcare respect	
Respected	60
Not respected	40
Healthcare dignity	
Dignified	60
Not dignified	40
Healthcare compassion	
Compassionate	60
Not compassionate	40
Healthcare empathy	
Empathetic	60
Not empathetic	40
Healthcare kindness	
Kind	60
Not kind	40
Healthcare gentleness	
Gentle	60
Not gentle	40
Healthcare patience	
Patient	60
Not patient	40
Healthcare tolerance	
Tolerant	60
Not tolerant	40
Healthcare understanding	
Understood	60
Not understood	40
Healthcare support	
Supported	60
Not supported	40
Healthcare help	
Helped	60
Not helped	40
Healthcare assistance	
Assisted	60
Not assisted	40
Healthcare aid	
Aided	60
Not aided	40
Healthcare relief	
Relieved	60
Not relieved	40
Healthcare comfort	
Comforted	60
Not comforted	40
Healthcare consolation	
Consolated	60
Not consolated	40
Healthcare sympathy	
Sympathetic	60
Not sympathetic	40
Healthcare empathy	
Empathetic	60
Not empathetic	40
Healthcare kindness	
Kind	60
Not kind	40
Healthcare gentleness	
Gentle	60
Not gentle	40
Healthcare patience	
Patient	60
Not patient	40
Healthcare tolerance	
Tolerant	60
Not tolerant	40
Healthcare understanding	
Understood	60
Not understood	40
Healthcare support	
Supported	60
Not supported	40
Healthcare help	
Helped	60
Not helped	40
Healthcare assistance	
Assisted	60
Not assisted	40
Healthcare aid	
Aided	60
Not aided	40
Healthcare relief	
Relieved	60
Not relieved	40
Healthcare comfort	
Comforted	60
Not comforted	40
Healthcare consolation	

Fig.25 is a flow chart showing a procedure of a processing
25 operation of a service execution management computer in the

Fig.26 is a flow chart showing a procedure of a processing operation of the service resources allotment management computer in the service execution control sequence in the embodiment of the present invention.

An embodiment of the present invention will now be
10 described.

As shown in the figure, the service supply system of this embodiment has a high function network 100, end users' computers 15 1 utilizing the service supplied by the high function network 100, a management computer group 300 adapted to manage and process various kinds of condition concerning the supplying of services, and a service supply management computer 2 adapted to control the reservation and execution of services.

20 The management computer group 300 includes a service
reservation management computer 3, a service execution
management computer 4, a users' attributes management computer
5, a condition management computer 6, service resources
allotment management computers 7, data accumulation resources
25 management computers 8, data transmission resources management

General information	
1. Name of the project	...
2. Date of the project	...
3. Location of the project	...
4. Duration of the project	...
5. Budget of the project	...
6. Objectives of the project	...
7. Scope of the project	...
8. Stakeholders of the project	...
9. Risks of the project	...
10. Communication plan	...
11. Progress report	...
12. Conclusion	...

5

5

5

10

15

20

25

25

group 300, service supply management computer 2 and end users' computers 1 are connected together via the transmission and exchange network constituting the network unit 12, whereby the service supply management computer 2 and end users' computers 1; the service supply management computer 2 and each computer in the management computer group 300; and the computers in the management computer group 300 are set communicatable with each other via the network unit 12. The communication between these parts may also be rendered possible not via the network units 12 in the high function network 100 but via other transmission and exchange network. Fig.2 shows an example in which the function of each computer in the management computer group 300 shown in Fig.1 is attained by distributed processing of the plural computers shown by the same reference numerals. The functions of these computers may also be attained by concentrated processing of a single computer.

The resources for the high function network 100 used for a service supplying operation of such network units 12 constitute, for example, transmission power, such as a transmission capacity of the network units 12.

The data accumulation computer 11 is adapted to accumulate data temporarily or permanently, and supply the service for distributing the accumulated data by utilizing the transmission and exchange service supplied by the network units 12 to the end user computers 1. To be exact, an electronic mail server,

a WWW proxy server, a cash server for domain name service, or a video cash server for distributing an image, which is sent by a user and temporarily stored, in accordance with a request made by a user correspond to the data accumulation computer 11.

Resources for the high function network 100 used for the supplying of services by the data accumulation computer 11 include resources for the accumulation capacity, transfer capacity and simultaneous distribution capacity of the data accumulation computer 11, and resources used for service supplying operations of the network units 12.

The data processing computer 13 is a computer having a data processing function. To be exact, the data processing computer 13 is an apparatus for carrying out the contraction and expansion of a video, synthesis of plural images, synthesis of plural voices, superposition of letters on an image, conversion of the color of an image, and encoding and decoding of an image. For example, a television meeting bridge which attains a multi-point television meeting by carrying out the synthesis of plural images and plural voices corresponds to this apparatus.

Resources for the high function network 100 used for the supplying of service by the data processing computer 13 constitute both the resources for transfer capacity and processing capacity of the data processing computer 13, and

resources used for service supplying operations of the network unit 12.

Each part of the management computer group 300 will now be described.

5 The users' attributes management computer 5 is adapted to hold attributes of end users and end users' computers 1.

10 The condition management computer 6 is adapted to manage, concerning every service, an actual reservation condition, and a load of logical resources for the high function network 100 in the actual reservation condition, i.e. a load of logical resources at each point in time for the high function network 100 in a case where the supplying of services is executed in accordance with the contents of the reservation.

15 The data accumulation resources management computers 8 are adapted to manage a condition of use of resources of the data accumulation computers 11 which will be described later.

 The data transmission and resources management computers 9 are adapted to manage a condition of use of resources of the network units 12 which will be described later.

20 The data processing resources management computers 10 are adapted to manage a condition of use of resources for the data processing computers 13 which will be described later.

25 The service resources allotment management computers 7 are adapted to allot services to be reserved or executed to respective resources of the high function network 100.

The service reservation management computer 3 is adapted to determine whether requested reservation is acceptable or denied while utilizing the service resources allotment management computers 7, and present a substitute plan which will be described later.

The service execution management computer 4 is adapted to determine whether execution of requested services is acceptable or denied while utilizing the service resources allotment management computers 7.

10 Each part of the service supply management computer 2
will now be described.

The service reservation units 203 are provided correspondingly to the kinds of services supplied by the high function network 100, and adapted to process requests for reservation received from the end users' computers 1 while utilizing the service reservation management computer 3.

The service execution control units 204 are provided correspondingly to the kinds of services supplied by the high function network 100, and adapted to process the requests for the execution of the services received from the end users' computers 1 while utilizing the service execution management computer 4.

The service request analysis unit 201 is adapted to analyze contents of reservation of services and those of requests for execution of the services received from the end users' computers

1.

The service type management unit 202 is adapted to manage services supplied by the high function network 100, logical levels of resources used for each service type, and the operations of the service reservation units 203 and service execution control units 204 which correspond to the kinds of services.

In that configuration, a hardware structure of each of these computers can employ a structure of a general computer 14 having a CPU 1401, a memory 1402, a storage 1403, a network interface 1404 and a bus 1405 which are shown, for example, in Fig.3. In this structure, a program 14021 and data 14022 supplied via a removable storage medium or network are stored in the memory 1402. When the CPU 1401 executes the program 14021, the processing of each part of each of the computers which will be described below is attained while the data 14022 are utilized.

An operation of the service supply system will now be described.

The operations of the service supply system of this embodiment are divided into three, i.e. a reservation service selection receiving operation, a service reservation operation and a reservation service execution control operation.

First, the reservation service selection receiving operation will be described.

Fig.4 shows a processing sequence of each part in the reservation service selection receiving operation.

As shown in the figure, the reservation service selection receiving operation is attained by a service synopsis supplying sequence and a service selection receiving sequence.

First, the service synopsis supplying sequence will be described.

Fig.5 shows a procedure of a processing operation of the request for service analysis unit 201 in the service synopsis supplying sequence.

In order to make a booking of services with reference to Fig.4, the end users' computers 1 transmit a request for synopsis of service to the request for service analysis unit 201 of the service supply management computer 2 (2001). The request for service analysis unit 201 transfers the requests to the users' attribute management computer 5 (2002) (Step 2301 of Fig.5).

The users' attribute management computer 5 holds a users' attribute table 5001 shown in Fig.6. As shown in the figure, on the users' attribute table 5001, information which includes a users' discriminator 5002 peculiar to the user, a users' name 5003, membership type 5004 representative of users type, a service discriminator 5005 representative of the services which the user subscribes, and network connection information 5006 indicating a position (address etc.) of the end user computers

1 on a transmission and exchange network attained by the network
units 12 is registered as user's attributes for each of all
users. For example, the user's name "Tom", the kind of
membership "Personal, economy" and the service discriminator
5 "103, 202, 212" are registered for the user having a user's
identifier "1003".

10 The users' attributes management computer 5, upon receipt
of the request for synopsis of service, reads out from the users'
attribute table 5001 the service discriminator and the kind
of membership both of which are corresponding to the user's
discriminator of the user who made the request, to deliver them
to the request for service analysis unit 201 (2003). For example,
the service discriminator "103, 202, 212" and the membership
type "Personal, economy" are delivered to the request for service
15 analysis unit 201 concerning the user having the user identifier
"1003".

20 The request for service analysis unit 201 transmits a
request for the name of service, which corresponds to the service
discriminator delivered thereto by the users' attributes
management computer 5 to the service type management unit 202
(2004, 2005) (Step 2302 of Fig.5).

25 The service type management unit 202 holds a service
attributes table 5101 shown in Fig.7. As shown in the figure,
on the service attributes table 5101 which includes service
identifier 5102, service name 5103, which includes service

5

15

25

Overall Statistics	
Number of cases	100
Number of deaths	10
Number of survivors	90
Number of cases by age group	
0-10	10
11-20	20
21-30	30
31-40	40
41-50	50
51-60	60
61-70	70
71-80	80
81-90	90
91-100	100
Number of deaths by age group	
0-10	1
11-20	2
21-30	3
31-40	4
41-50	5
51-60	6
61-70	7
71-80	8
81-90	9
91-100	10
Number of survivors by age group	
0-10	9
11-20	18
21-30	27
31-40	36
41-50	45
51-60	54
61-70	63
71-80	72
81-90	81
91-100	90
Number of cases by sex	
Male	50
Female	50
Number of deaths by sex	
Male	5
Female	5
Number of survivors by sex	
Male	45
Female	45
Number of cases by race	
White	60
Black	20
Hispanic	10
Other	10
Number of deaths by race	
White	6
Black	2
Hispanic	1
Other	1
Number of survivors by race	
White	54
Black	18
Hispanic	9
Other	9

The request for service analysis unit 201 forms a synopsis of the names of the determined services (Step 2304 of Fig.5), and returns the synopsis to the end users' computers 25 1 (2007). The end users' computers 1 display as shown in, for

The above initial screen 5301 for service reservation of Fig.10 is a screen for accepting requests for reservation of the service of multi-point television meeting, economy. This screen is used to accept participants in and starting and finishing time of the multi-point television meeting, economy from the users.

The above is a description of the service selection receiving sequence.

20 Fig.11 shows a processing sequence of each part in the
service reservation making operation.

25 First, the tentative service reservation making sequence

[illegible]

Table 1. Demographic characteristics of the study population	
Age (years)	Mean (SD)
18-24	20.5 (2.5)
25-34	29.5 (4.5)
35-44	39.5 (5.5)
45-54	49.5 (6.5)
55-64	59.5 (7.5)
65-74	69.5 (8.5)
75-84	79.5 (9.5)
85-94	89.5 (10.5)
95-104	99.5 (11.5)
105-114	109.5 (12.5)
115-124	119.5 (13.5)
125-134	129.5 (14.5)
135-144	139.5 (15.5)
145-154	149.5 (16.5)
155-164	159.5 (17.5)
165-174	169.5 (18.5)
175-184	179.5 (19.5)
185-194	189.5 (20.5)
195-204	199.5 (21.5)
205-214	209.5 (22.5)
215-224	219.5 (23.5)
225-234	229.5 (24.5)
235-244	239.5 (25.5)
245-254	249.5 (26.5)
255-264	259.5 (27.5)
265-274	269.5 (28.5)
275-284	279.5 (29.5)
285-294	289.5 (30.5)
295-304	299.5 (31.5)
305-314	309.5 (32.5)
315-324	319.5 (33.5)
325-334	329.5 (34.5)
335-344	339.5 (35.5)
345-354	349.5 (36.5)
355-364	359.5 (37.5)
365-374	369.5 (38.5)
375-384	379.5 (39.5)
385-394	389.5 (40.5)
395-404	399.5 (41.5)
405-414	409.5 (42.5)
415-424	419.5 (43.5)
425-434	429.5 (44.5)
435-444	439.5 (45.5)
445-454	449.5 (46.5)
455-464	459.5 (47.5)
465-474	469.5 (48.5)
475-484	479.5 (49.5)
485-494	489.5 (50.5)
495-504	499.5 (51.5)
505-514	509.5 (52.5)
515-524	519.5 (53.5)
525-534	529.5 (54.5)
535-544	539.5 (55.5)
545-554	549.5 (56.5)
555-564	559.5 (57.5)
565-574	569.5 (58.5)
575-584	579.5 (59.5)
585-594	589.5 (60.5)
595-604	599.5 (61.5)
605-614	609.5 (62.5)
615-624	619.5 (63.5)
625-634	629.5 (64.5)
635-644	639.5 (65.5)
645-654	649.5 (66.5)
655-664	659.5 (67.5)
665-674	669.5 (68.5)
675-684	679.5 (69.5)
685-694	689.5 (70.5)
695-704	699.5 (71.5)
705-714	709.5 (72.5)
715-724	719.5 (73.5)
725-734	729.5 (74.5)
735-744	739.5 (75.5)
745-754	749.5 (76.5)
755-764	759.5 (77.5)
765-774	769.5 (78.5)
775-784	779.5 (79.5)
785-794	789.5 (80.5)
795-804	799.5 (81.5)
805-814	809.5 (82.5)
815-824	819.5 (83.5)
825-834	829.5 (84.5)
835-844	839.5 (85.5)
845-854	849.5 (86.5)
855-864	859.5 (87.5)
865-874	869.5 (88.5)
875-884	879.5 (89.5)
885-894	889.5 (90.5)
895-904	899.5 (91.5)
905-914	909.5 (92.5)
915-924	919.5 (93.5)
925-934	929.5 (94.5)
935-944	939.5 (95.5)
945-954	949.5 (96.5)
955-964	959.5 (97.5)
965-974	969.5 (98.5)
975-984	979.5 (99.5)
985-994	989.5 (100.5)
995-1004	999.5 (101.5)
1005-1014	1009.5 (102.5)
1015-1024	1019.5 (103.5)
1025-1034	1029.5 (104.5)
1035-1044	1039.5 (105.5)
1045-1054	1049.5 (106.5)
1055-1064	1059.5 (107.5)
1065-1074	1069.5 (108.5)
1075-1084	1079.5 (109.5)
1085-1094	1089.5 (110.5)
1095-1104	1099.5 (111.5)
1105-1114	1109.5 (112.5)
1115-1124	1119.5 (113.5)
1125-1134	

5

10

15

25

15

20

25

[illegible]

preparation of the substitute plan is necessary, prepares the substitute reservation plan and its logical connection information (2107)(Step 2604 of Fig.13).

5 The substitute reservation plan is prepared by altering a part of the logical resources of the high function network, which is indicated by variables of the logical connection information, i.e. service starting and finishing date and time and logical resources information, in accordance with service execution policies prepared in advance.

10 Examples of the service execution policies are shown in Fig.15.

000T30"0E95E950
15 The service execution policies shown in Fig.15 are applied to a case where the logical resource information included in the logical connection information for the reservation uses logical resources of TVconfBridge3. When the loads of the service starting and finishing date and time for the TVconfBridge3 are not lower than 95%, not lower than 80%, not lower than 50% and lower than 50% respectively, a judgement as to whether or not the reservation is accepted, and as to
20 whether or not the substitute plan is presented, and a method of calculating the substitute plan are prescribed in accordance with the membership type of the participants.

As shown in the figure, the service execution policies are expressed by groups of if-then rules. The "if conditions"
25 are examined in order from the upper side, and, when there are

When a person having the highest level of the membership type among the participants is a member of "individual economy" and a load of the TvconfBridge3 for a desired reservation time zone is at 85%, the rule 2626 is applied. This rule indicates to search for a time zone of a load of lower than 80% in a period of time between the time four hours before the requested time zone and that four hours after the same requested time zone after denying requested reservation, and indicates that a substitute reservation plan, in which reservation service

the requested reservation.

The requested reservation and the substitute reservation plan prepared on the basis of the results of the execution of the above-described processes will hereinafter be called reservation candidate. When the substitute reservation plan is not prepared, the requested reservation only becomes the candidate reservation.

When the reservation candidate has thus been determined, the service reservation management computer 3 transmits a request for allotment of the service resources with respect to all the preservation candidate to the service resources allotment management computer 7 (2108) (Step 2606 of Fig.13). During this time, logical connection information on the service resources to be used is designated.

15 When the service resources allotment management computer
7 receives this request(Step 2701 of Fig.14), the computer 7
makes a service resources allotment plan.

According to the service resources allotment plan, physical resources for the network units 12, data accumulation computers 11 and data processing computers 13, which are necessary to execute the services shown by the logical connection information, are allotted to each reservation candidate.

First, the service resources allotment management
computer 7 inquire from the users' attributes management
25 computer 5 about the network connection information

corresponding to the users' discriminators of all the participants indicated by the logical connection information registered on the users' attributes table 5001 to obtain the network connection information, said information is obtained
5 (Step 2702 of Fig. 14).

Then the service resources allotment management computer 7 selects all groups of physical resources corresponding to the logical resources indicated by the logical resources information of the logical connection information are selected
10 by using a data accumulation resources management table 2650 and a data processing resources management table 2660 which are held in advance, and the network connection information corresponding to the users' discriminators of all the participants indicated by the previously obtained logical
15 connection information (Step 2703 of Fig. 14).

Fig. 16 shows an example of the data accumulation resources management table 2650. This data accumulation resources management table 2650 is provided on the assumption that the data accumulation computers 11 are used as video cash servers.
20 Concerning every physical resource, logical resource 5402 to which the physical resource belongs, a physical resource discriminator 5403, a computer discriminator 5404 of the data accumulation computers 11 in which the physical resource is provided, and a total amount of the physical resource is
25 registered on the table 2650. In this example, a combination

of the number of acceptable reservation 5405, a maximum transfer speed 5406 and a maximum number of clients (number of the end users' computers 1 to which video data can be transmitted at once) 5407 are registered as a total amount of the physical resource.

Fig.17 shows an example of the data processing resources management table 2660. This data processing resources table 2660 is provided on the assumption that the data processing computers 13 are used as apparatuses for subjecting television meeting bridge or processing a superimposition on image data. Concerning every physical resource, logical resource 5502 to which the physical resource belongs, a physical resources discriminator 5503, a computer discriminator 5504 for the data processing computers 13 in which the physical resource is provided, and a total amount of the physical resources are registered on the table 2660. In this example, a combination of the number of acceptable reservation 5505, a maximum transfer speed 5506 and a maximum number of connection (number of end users' computers 1 capable of participating a television meeting at once) 5507 is registered as a total amount of the physical resources.

Each of the physical resources groups selected forms a group of one of the physical resources corresponding to the logical resources indicated by the logical resources information of the logical connection information registered

on the data accumulation resources management table 2650 and data processing resources management table 2660, and physical resources (i.e. transmission and exchange network or a combination thereof) for the network units 12 capable of forming one path, between the end users' computers 1 indicated by the one of the physical resources and the network connection information by transmission capacity and transmission quality indicated by the logical connection information.

After a group of physical resources has thus been selected, physical connection information candidate is selected by using a reservation management table 35 shown in Fig.18 (Step 2704 of Fig.14).

The reservation management table 35 is formed for each reservation set or temporarily set, so as to include a reservation number 5602, reservation type 5603, physical connection information 5604 and starting and finishing date and time 5605, 5606. In the reservation type 5603 in this example, either "real reservation" indicative of properly set reservation or "tentative reservation" indicative of tentatively set reservation is set. The physical connection information 5604 indicates physical resources used for reserved service and a using amount of the resources used for the service. The starting and finishing date and time 5605, 5606 represent the time at which the reserved service is executed.

Namely, in a Step 2704 of Fig.14, the following operation

is carried out. As to the service for reservation candidate being processed, assumed that the service for the reservation registered as "real reservation" on the reservation management table 35 is executed in accordance with the starting and finishing date and time, set with respect to the reservation, during the time between the service starting and finishing time designated in the logical connection information by using a group of physical resources and a using resource amount indicated by the physical connection information set with respect to the mentioned reservation. In that case, all groups of physical resources in which the sum of resources required to execute each physical resource belonging to the group of the physical resources do not exceed the total amount of the physical resources when the group of the physical resources is executed by using the amount of resources written in the logical resources information in the logical connection information, are extracted. Each extracted group of physical resources is determined as physical connection information candidate in which the amount of resources written in the logical resources information is set as a using resource amount. With respect to this physical connection information candidate, the service starting and finishing data and time indicated by the logical connection information is set as starting and finishing date and time. A total amount of the physical resources for the transmission and exchange network is set as a total

transmission capacity of the transmission and exchange network.

When no physical connection information candidate could be prepared in this process, the service resources allotment management computer 7 informs a failure in the allotment of resources to the service reservation management computer 3 (2110). When physical connection information candidate could be prepared, the service resources allotment management computer 7 evaluates each physical connection information candidate in accordance with the physical connection information evaluation equation indicated by the logical connection information, and selects the highest-evaluated physical connection information candidate as physical connection information (Step 2705 of Fig.14). The physical connection information evaluation equation is, for example, an equation for increasing the evaluation value of the physical connection information in inverse portion to the cost of use.

Then the service resources allotment management computer 7 generates a reservation number to register (Step 2706 of Fig.14) on a reservation management table 35 shown in Fig.18 with the physical connection information selected in Step 2705 shown in Fig.14 and the starting and finishing date and time set with respect thereto. During this time, the reservation type is set to "tentative reservation".

Then the service resources allotment management computer
25 7 informs the stored reservation number to the service

reservation management computer 3 (Step 2707 of Fig.14). As a result, the reservation numbers registered with respect to respective reservation candidates are notified to the service reservation management computer 3.

5 After the service reservation management computer 3 receives reservation numbers with respect to the respective reservation candidate from the service resources allotment management computers 7, the computer 3 stores the reservation numbers and logical connection information on reservation
10 candidate, and notifies the service reservation units 203 of this fact (2113)(Step 2606 of Fig.13).

Consequently, the service reservation units 203 informs the reservation numbers and the logical connection information to the end users' computers 1 (2114)(Step 2503 of Fig.12).

15 The end users' computers 1 then display the received reservation numbers and logical connection information as a synopsis of reservation candidate.

The tentative service reservation making sequence have been described.

20 The real service reservation making sequence will now
be described.

A procedure for processing operations of service reservation units 203, service reservation management computers 3 and service resources allotment management computers 7 in the service reservation making sequence are shown

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2
--	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	---

Then the service reservation management computer 3 transfers the reservation number, whose real reservation was demanded, to the service resources allotment management computer 7, to demand the real reservation thereof (Step 2903 of Fig.20) and notify all reservation numbers stored in Step 2606 of Fig.13 except for the reservation number whose real reservation was demanded to the service resources allotment managing computers 7, to request for the cancellation of the reservation (2119 and 2120)(Step 2904 of Fig.20).

Consequently, the service reservation management computer 3 notifies the service reservation units 203 that making real reservation has finished (2121), and sends (Step 2805 of Fig. 21) to the condition management computer 6 the reservation number and the logical connection information stored in Step 2606 shown in Fig. 13 corresponding to the reservation number of which the making of real reservation succeeded. The condition management computer 6 adds the reservation represented by the received logical connection information to the present reservation condition managed thereby. The condition management computer 6 calculates for every service on the basis of this reservation condition and a total amount of each logical resources for each service held in advance, the load of logical resources, at each point in time, for the

high function network 100 in the present reservation condition,
i.e., in a case where the service is executed in accordance
with the reservation.

When the service indicated by the logical connection
5 information corresponding to the reservation number of which
the making of real reservation was succeeded is a telephone
meeting etc., the service reservation units 203 informs the
completion of the making of real reservation, with logical
connection information to each participant other than the users
10 who demanded the making of real reservation in the service (2122).
This enables each participant to ascertain that the service
in which he or she is to participate was reserved (Step 2804
of Fig.19). The completion of the reservation is notified to
the end user's computer 1 of the user who demanded the real
15 reservation (2123)(Step 2805 of Fig.19).

The real service reservation making sequence has been
described above.

The service execution control operation will now be
described.

20 Fig.22 shows a processing sequence of each part in a
service execution control operation.

As shown in the figure, the service execution control
operation is attained by a service execution control starting
sequence and a service execution control sequence.

25 First, the service execution control starting sequence

A procedure for a processing operation of the service execution controller 2, service execution management computer 4 and service resources allotment management computer 7 in the service execution control sequence is shown in Figs.24, 25 and 26.

Referring to Fig.22, the end user's computer 1 transmits the reservation number whose making of real reservation has already finished to the service execution control unit 204 to request for starting the service reserved in the reservation (2208).

When the service execution control unit 204 receives this request (Step 3201 of Fig.24), it refers to the logical connection information and the groups of the reservation number held in itself, and notifies the denial of the request to the end user's computer 1 when there is not logical connection information corresponding to the reservation number concerning the request, or when there is not the present time between the service starting time and service finishing time which are indicated by the logical connection information corresponding to the reservation number concerning the request. When there is the present time between the service starting time and service finishing time which are indicated by the logical connection information corresponding to the reservation number concerning the request, this request is transferred to the service execution management computer 4 (2209)(Step 3202 of Fig.24).

The service execution management computer 4 receives this request (Step 3301 of Fig.26), and transfers it to the service resources allotment management computer 7 (2201)(Step 3302 of Fig.25).

5 When the service execution allotment management computer 7 receives (Step 3401 of Fig.25), it takes out (Step 3402 of Fig.26) the physical connection information on the reservation corresponding to the reservation number concerning the request from the reservation management table 35. Next, as to each
10 of the physical resources included in the physical connection information, the service execution allotment management computer 7 requests for allotment of resources of using resource amount indicated by the physical connection information of the
15 physical resources to the data accumulation resources management computer 8, the data transmission resources management computer 9 and the data processing resources management computer 10 which manage the physical resource (2211)(Step 3403 of Fig.26).

20 The data accumulation resources management computer 8, the data transmission resources management computer 9 and the data processing resources management computer 10 notify allotment success to the service resources allotment management computer 7 when there is room whose volume corresponds to the using resource amount requested, among the physical resource
25 which is requested for the allotment (2212).

When the service resources allotment management computer 7 to confirm that the allotment of all service resources succeeded by this notification, the computer 7 notifies the allotment success and the physical connection information on the reservation number concerning the request to the service execution management computer 4 (2213)(Step 3404 of Fig.26).

Owing to this notification, the service execution management computer 4 confirms that the allotment succeeded (Step 3303 of Fig.25), and notifies the received physical connection information and the success of the request to the service execution control member 204 (2214)(Step 3304 of Fig.25).

Owing to this notification, the service execution management computer 4 judges whether or not the request was succeeded (Step 3203 of Fig.24). When the request was succeeded, and the requested service is a television meeting, the designation of the service and a request for the participation in the service are notified with the received physical connection information to the end users' computers 1 of all the participants in the service except the user who requested for the service (2215)(Step 3204 of Fig.24).

The success in the starting of the service is notified with the received physical connection information to the end user's computer 1 which requested for the service (2216)(Step 3205 of Fig.24).

As described above, in the this embodiment, a request for service having a degree of importance not higher than a level of importance which increases in proportion to a load of resources is denied even when reservation is accepted to execute the service in accordance with the reservation, and the amount of resources used for the service does not exceed a level utilizable for the service by a process using the service operating policies of Fig.15. When a request for reservation is thus denied, or, even when such a request is not denied, a substitute reservation plan capable of heightening the resources utilization efficiency is prepared, and presented to the users to accelerate the users' utilization of services based on the substitute reservation plan.

Therefore, reservation of a high degree of importance can be accepted preferentially with a high probability. In addition, reservation of a low degree of importance once accepted is not cancelled later. Furthermore, when the utilization of the services based on a substitute reservation plan in which a part only of the contents of a user's desired reservation is changed, i.e., the contents of a user's desired reservation are respected to a predetermined extent is recommended to the users, whereby the users' reservation can be induced in the direction in which the utilization efficiency of resources increases.

Therefore, in the this embodiment, the utilization efficiency of resources and the degree of the users' satisfaction concerning the utilization of services can be optimized.

15 In this embodiment, as a substitute reservation plan,
a case where the service starting and finishing time out of
variables constituting the contents of reservation requested
by a user is changed by using the service operating policies
shown in Fig.15 is described. However, it may be determined
20 arbitrarily in accordance with the environment and condition
of the service supply system and the operator's policy what
kind of variable among the variables constituting the contents
of reservation should be changed to prepare a substitute
reservation plan to be presented. The variables out of
25 variables constituting the contents of the reservation

Although the resources are managed in two stages, i.e., in stages of logical resources and physical resources in this embodiment, the managing of the resources may also be done in one stage only. In both of these cases, the unit of the resources

The techniques in this embodiment for denying reservation in accordance with the load of resources and the degree of importance of the reservation, and presenting a substitute plan can be applied in the same manner to an arbitrary system for supplying service by using certain resources besides the high function network shown in this embodiment.

According to the present invention described above, the rate of utilization of resources and the degree of users' satisfaction concerning the utilization of services can be optimized. To be exact, for example, the services which do not cause the degree of users' satisfaction concerning the utilization thereof to lower greatly with a considerably high efficiency of utilization of resources maintained can be supplied. Also, the smoothing of the users' utilization of the services can be done as services with which the users are satisfied to a certain extent are supplied.

1. Personal information	
1.1 Name	1.2 Age
1.3 Sex	1.4 Marital status
1.5 Education	1.6 Occupation
1.7 Income	1.8 Health status
1.9 Family size	1.10 Living arrangement
1.11 Religion	1.12 Ethnicity
1.13 Social class	1.14 Political affiliation
1.15 Attitudes	1.16 Values
1.17 Personality	1.18 Interests
1.19 Hobbies	1.20 Sports
1.21 Pets	1.22 Travel
1.23 Volunteering	1.24 Philanthropy
1.25 Charitable giving	1.26 Environmentalism
1.27 Social responsibility	1.28 Corporate social responsibility
1.29 Sustainability	1.30 Ethics
1.31 Integrity	1.32 Honesty
1.33 Trust	1.34 Loyalty
1.35 Commitment	1.36 Dedication
1.37 Passion	1.38 Enthusiasm
1.39 Motivation	1.40 Drive
1.41 Ambition	1.42 Aspiration
1.43 Goal setting	1.44 Planning
1.45 Organization	1.46 Management
1.47 Leadership	1.48 Teamwork
1.49 Collaboration	1.50 Communication
1.51 Listening	1.52 Speaking
1.53 Writing	1.54 Reading
1.55 Learning	1.56 Teaching
1.57 Mentoring	1.58 Coaching
1.59 Supervision	1.60 Evaluation
1.61 Feedback	1.62 Criticism
1.63 Praise	1.64 Recognition
1.65 Reward	1.66 Incentive
1.67 Motivation	1.68 Inspiration
1.69 Creativity	1.70 Innovation
1.71 Risk-taking	1.72 Caution
1.73 Boldness	1.74 Shyness
1.75 Assertiveness	1.76 Passivity
1.77 Confidence	1.78 Insecurity
1.79 Self-esteem	1.80 Self-worth
1.81 Self-respect	1.82 Self-love
1.83 Self-care	1.84 Self-improvement
1.85 Self-discipline	1.86 Self-control
1.87 Self-motivation	1.88 Self-empowerment
1.89 Self-actualization	1.90 Self-fulfillment
1.91 Self-achievement	1.92 Self-satisfaction
1.93 Self-acceptance	1.94 Self-compassion
1.95 Self-forgiveness	1.96 Self-kindness
1.97 Self-compassion	1.98 Self-love
1.99 Self-care	1.100 Self-improvement

1 1. A service reservation system adapted to accept from users
2 requests for reservations for utilizing services supplied by
3 using resources, comprising:

4 a reservation condition management element adapted to
5 manage the accepted reservation of services as reservation
6 conditions;

7 a first acceptance element adapted to accept service
8 booking requests from users;

9 an importance degree determining element adapted to
10 determine in accordance with preset specifications a degree
11 of importance of the service booking requests accepted by the
12 first acceptance element; and

13 a reservation taking element adapted, when a load level,
14 which is determined depending upon the reservation condition
15 managed by the reservation condition management element, of
16 resources used for supplying object services relative to the
17 service booking requests accepted by the first acceptance
18 element is higher than a predetermined level, to deny the
19 acceptance of the service booking requests if the degree of
20 importance of the service booking requests determined by the
21 importance degree determining element is lower than a
22 predetermined importance degree determined by a predetermined
23 standard, and to permit the acceptance of the service booking

24 requests if the degree of importance of the service booking
25 requests determined by the importance degree determining
26 element is not lower than the predetermined importance degree.

1 2. A service reservation system according to claim 1, wherein
2 said predetermined standard is a standard at which the
3 predetermined importance degree increases in proportion to the
4 load level of resources in a period of time of execution of
5 object service relative to the reservation booking request.

1 3. A service reservation system adapted to accept from users
2 requests for reservations for utilizing services supplied by
3 using resources, comprising:

4 a reservation condition management element adapted to
5 manage accepted reservations of services as reservation
6 condition;

7 a first acceptance element adapted to accept service
8 booking requests from users,

9 a substitute reservation plan preparation element
10 adapted to prepare at least one substitute reservation plan
11 which is obtained by at least partially altering the contents
12 of reservation in the reservation booking requests accepted
13 by the first acceptance element, in such a manner that a general
14 resources utilization efficiency increases in accordance with
15 the contents of the reservation and a load level of resources

27 a reservation element adapted to accept as reservation
28 the substitute reservation plan whose selection is accepted
29 by the second acceptance element.

3 a substitute reservation plan preparing element adapted
4 to prepare, when the acceptance of the reservation in the
5 reservation booking request is denied by the reservation taking
6 element, at least one substitute reservation plan which is
7 obtained by at least partially altering the contents of
8 reservation in the reservation booking requests accepted by
9 the first acceptance element, in such a manner that a general
10 resource utilization efficiency increases in accordance with

22 said reservation taking element accepts as reservation
23 the substitute reservation plan whose selection is accepted
24 by the second selection accepting element.

3 a substitute reservation preparation element adapted
4 to prepare, when the acceptance of the reservation in the
5 reservation booking request is allowed by the reservation taking
6 element, at least one substitute reservation plan which is
7 obtained by at least partially altering the contents of
8 reservation in the reservation booking request accepted by the
9 first acceptance element, in such a manner that a general
10 resource utilization efficiency increases in accordance with

22 said reservation taking element accepts the substitute
23 reservation plan as reservation when its selection is accepted
24 by the second acceptance element; and said reservation taking
25 element accepts when its selection is accepted by the second
26 acceptance element.

1 6. A service supplying system adapted to supply services by
2 using resources, comprising the service reservation system
3 defined in claim 1, wherein said resources supplying services
4 in accordance with the reservation accepted by the service
5 reservation system.

1 7. A service supplying system according to claim 6, wherein:
2 said resources include a transmission and exchange

2 the reservation for utilizing services supplied by using
3 resources, comprising:
4 a first step of accepting service reservation booking
5 requests from the users;
6 a second step of preparing at least one substitute
7 reservation plan which is obtained by at least partially altering
8 the contents of reservation in the accepted reservation booking
9 requests, in such a manner that a general resources utilization
10 efficiency increases in accordance with the contents of the
11 reservation and a load level of resources used for supplying
12 of the object services relative to the reservation condition;
13 a third step of presenting said at least one substitute
14 reservation plan to the users;
15 a fourth step of accepting the user's selection of said
16 at least one substitute reservation plan; and
17 a fifth step of accepting as reservation the substitute
18 reservation plan selected by the users.

1 10. A recording medium storing therein a program read and
2 executed by an electronic computer,
3 said program comprising a program for constituting on
4 the electronic computer a service reservation system adapted
5 to accept from users reservation for the utilization of services
6 supplied by using resources,
7 said service reservation system including:

8 a reservation condition management element adapted to
9 manage the accepted reservation of services as reservation
10 conditions;

11 a first acceptance adapted to accept service booking
12 requests from users;

13 an importance degree determining element adapted to
14 determine in accordance with preset specifications a degree
15 of importance of the service booking requests accepted by the
16 first acceptance element; and

17 a reservation taking element adapted to, when a load level,
18 which is determined depending upon the reservation condition
19 managed by the reservation condition management element, of
20 resources used for supplying object services relative to the
21 service booking requests accepted by the first acceptance
22 element is higher than a predetermined level, deny the acceptance
23 of the service booking requests if the degree of importance
24 of the service booking requests determined by the importance
25 degree determining element is lower than a predetermined
26 importance degree determined by a predetermined standard and
27 permit the acceptance of the service booking requests if the
28 degree of importance of the service booking requests determined
29 by the importance degree determining element is not lower than
30 the predetermined importance degree.

000180" 0E95E960

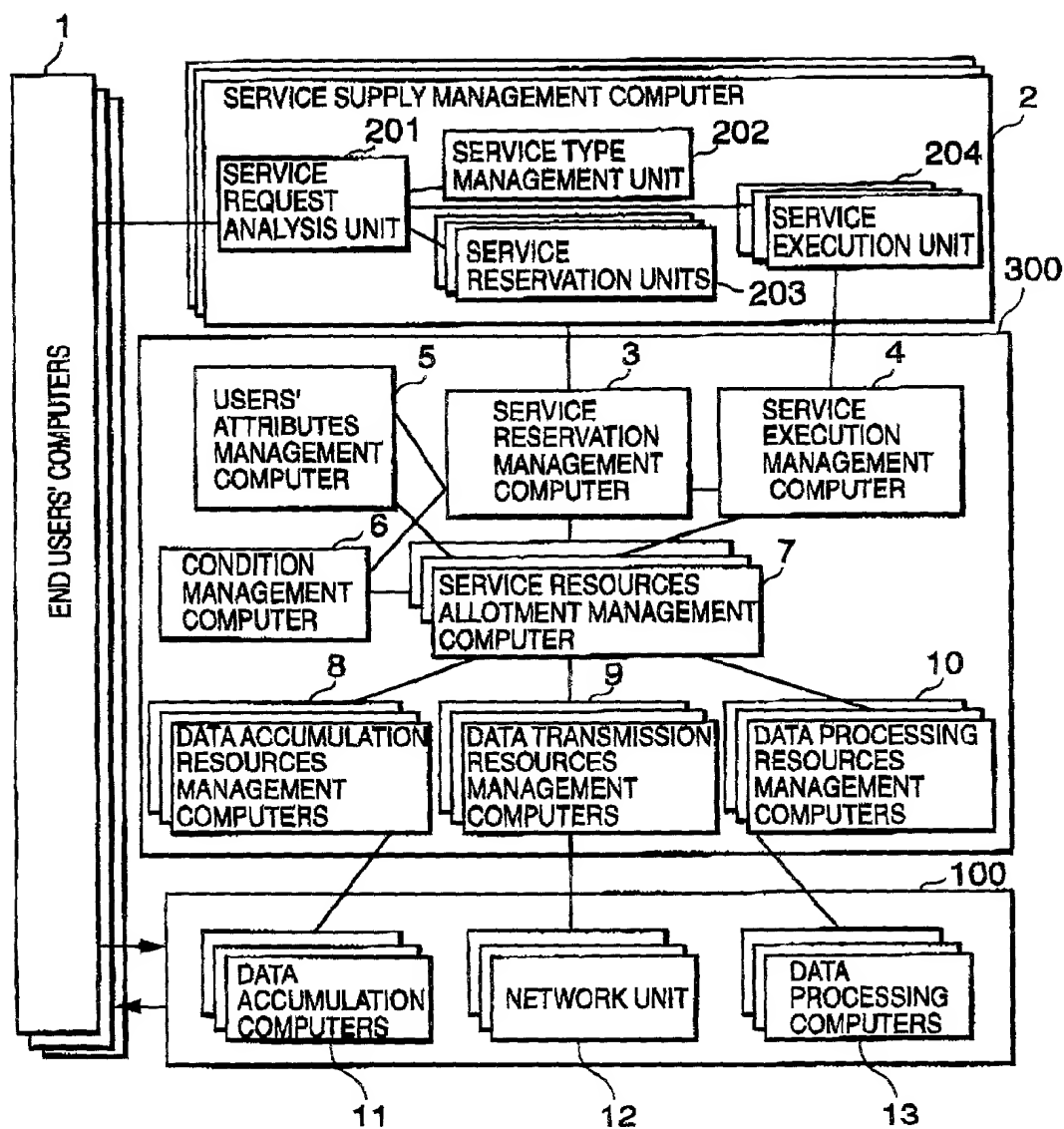
[illegible]

[illegible]

5
10
15
20

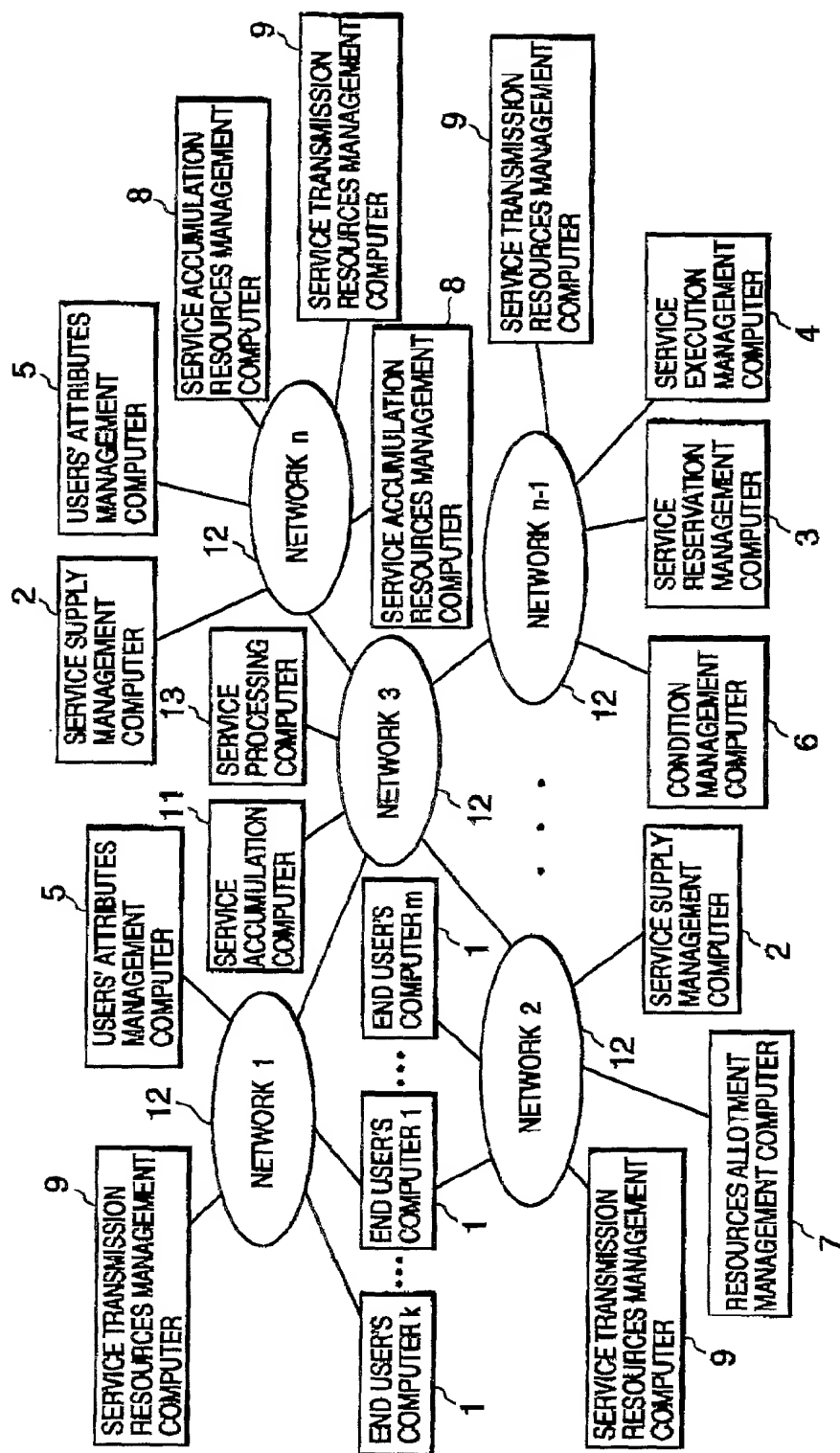
1/26

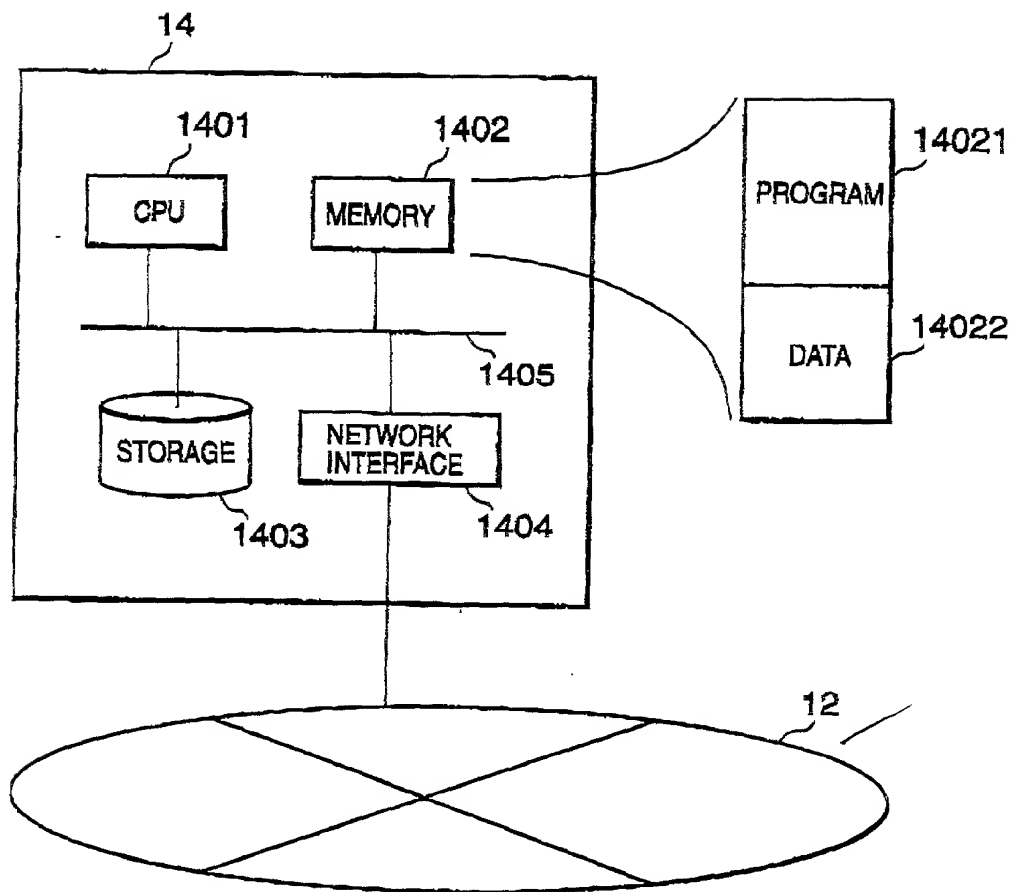
FIG. 1



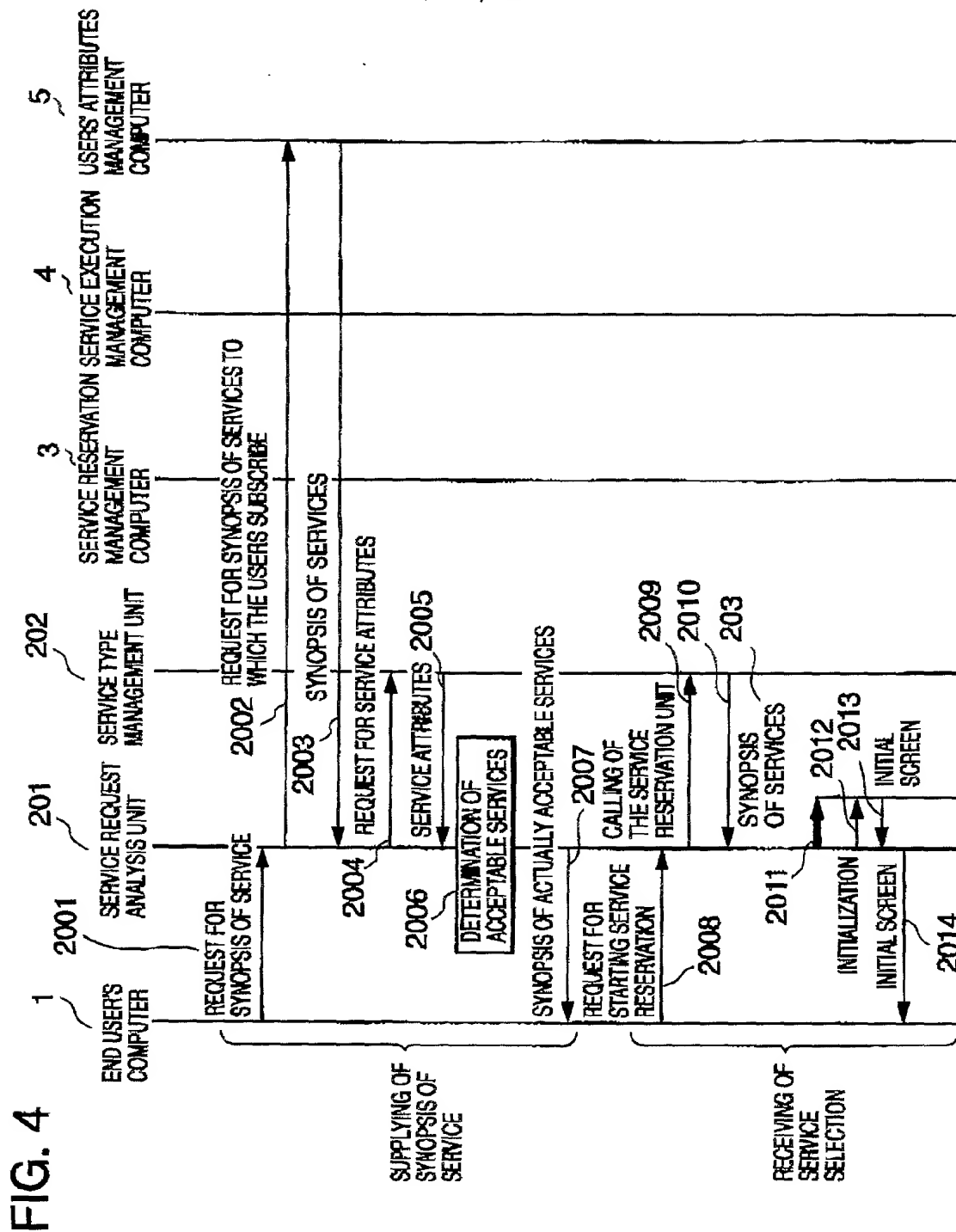
2/26

FIG. 2





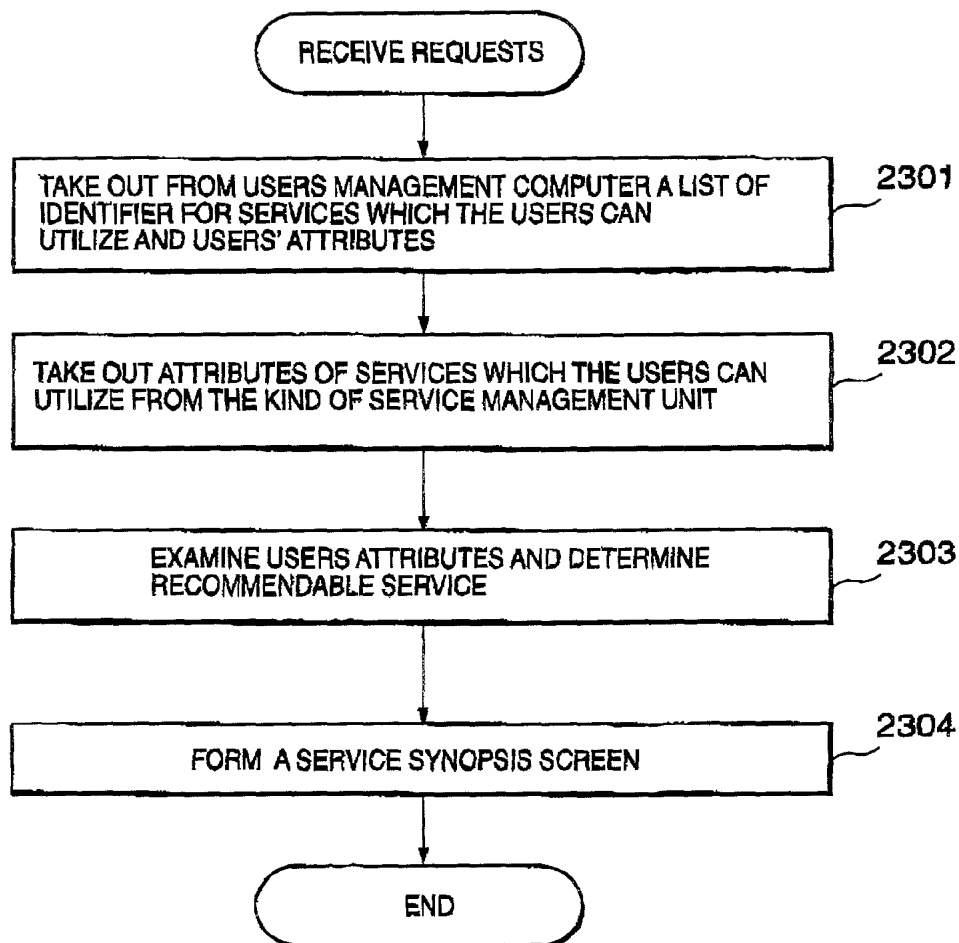
4/26



000780" 06552950

5/26

FIG. 5



000780" 06551560

FIG. 6

5002		5003	5004	5005	5006	5001
USER DISCRIMINATORS	NAME OF USERS	KIND OF MEMBERSHIP	SUBSCRIPTION SERVICE	NETWORK CONNECTION INFORMATION		
1001	HITACHI	CORPORATION	101,102			...
1002	JOHN	INDIVIDUAL STANDARD	102,103,201,211			...
1003	TOM	INDIVIDUAL ECONOMY	103,202,212			...

7/26

FIG. 7

5102		5103		5104		5105		5106	5101
SERVICE IDENTIFIER	NAME OF SERVICES	LOGICAL RESOURCES INFORMATION	SERVICE RESERVATION UNIT	SERVICE EXECUTION CONTROL UNIT					
101	MULTI-POINT TELEVISION MEETING (HIGH IMAGE QUALITY)	6.3Mbps, LOW DELAY, TVConfBridge							
102	MULTI-POINT TELEVISION MEETING (INTERMEDIATE IMAGE QUALITY)	1.5Mbps, LOW DELAY, TVConfBridge							
103	MULTI-POINT TELEVISION MEETING (ECONOMY)	100Kbps, TVConfBridge							
201	PREVIEW OF A NEWLY PRODUCED MOTION PICTURE (HIGH IMAGE QUALITY)	6.3Mbps, MPEGserver							
202	PREVIEW OF A NEWLY PRODUCED MOTION PICTURE (LOW CHARGE)	1.5Mbps, MPEGserver							
211	MAIN COMPILATION OF A NEWLY PRODUCED MOTION PICTURE (HIGH IMAGE QUALITY)	6.3Mbps, MPEGserver							
212	MAIN COMPILATION OF THE NEWLY PRODUCED MOTION PICTURE (LOW CHARGE)	1.5Mbps, MPEGserver							

8/26

FIG. 8

5201

SYNOPSIS OF SERVICE

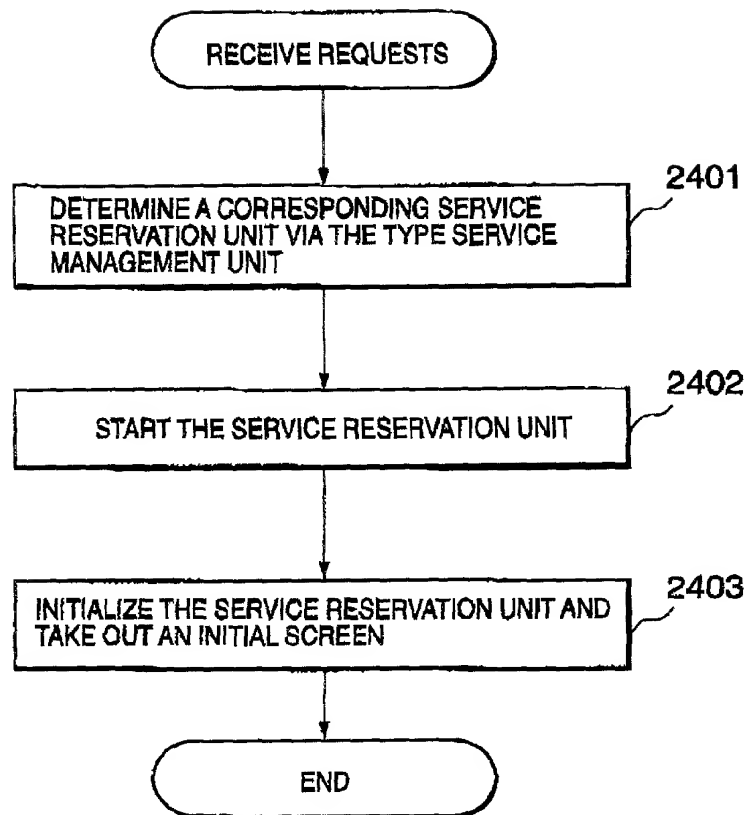
MULTI-POINT TELEVISION MEETING (ECONOMY)

**PREVIEW OF A NEWLY PRODUCED MOTION PICTURE
(LOW PRICE)**

MAIN COMPILATION OF THE NEWLY	03:00
PRODUCED MOTION PICTURE (LOW CHARGE)	18:00

[illegible]

FIG. 9



10/28

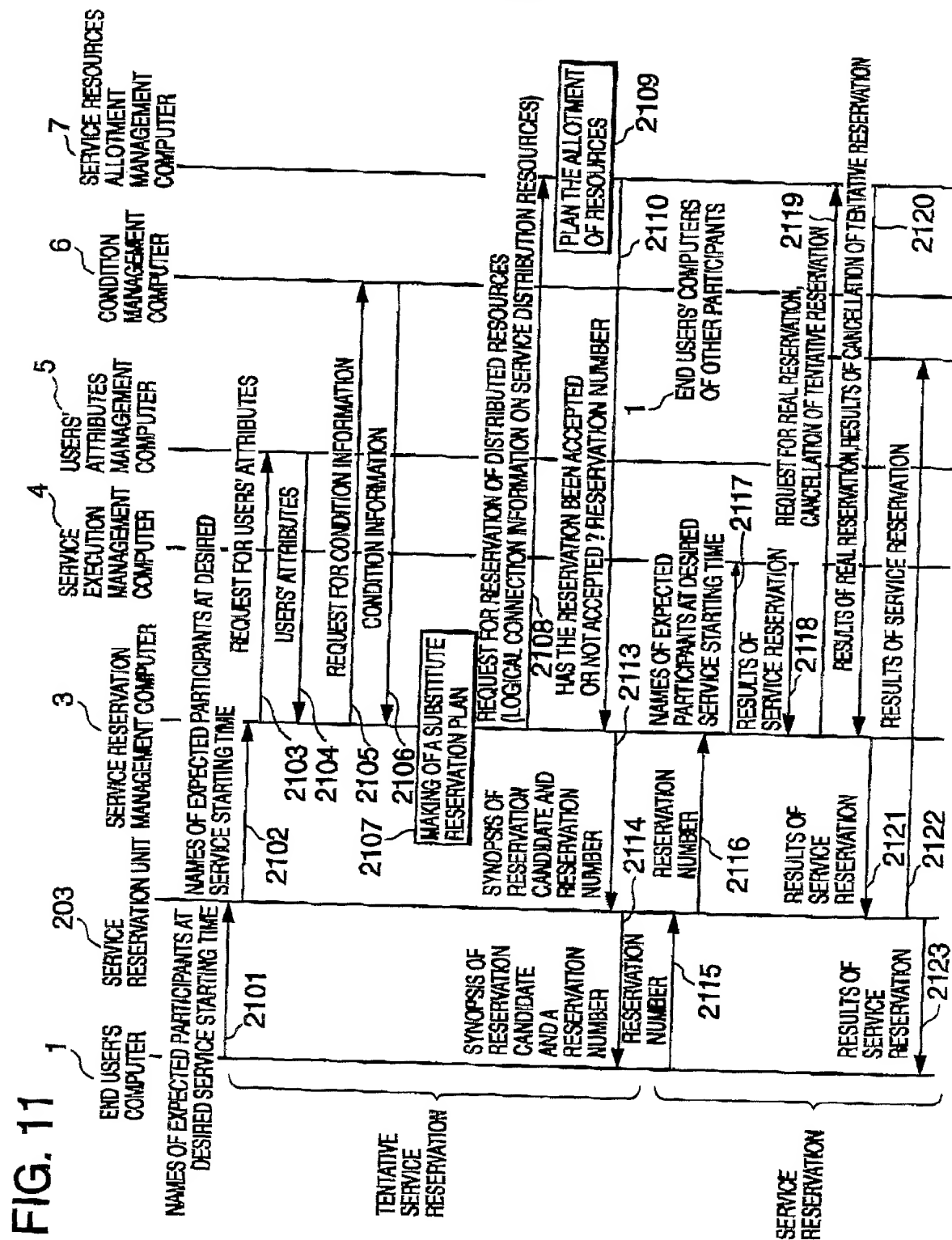
FIG. 10

5301

MAKE A RESERVATION BOOKING REQUEST FOR A MULTI-POINT TELEVISION MEETING (ECONOMY)									
PARTICIPANT 1			JOHN						
PARTICIPANT 2			HITACHI						
PARTICIPANT 3			—						
STARTING TIME		4	MONTH	1	DATE	15	HOUR	00	MINUTE
ENDING TIME		4	MONTH	1	DATE	17	HOUR	00	MINUTE
APPLICATION									

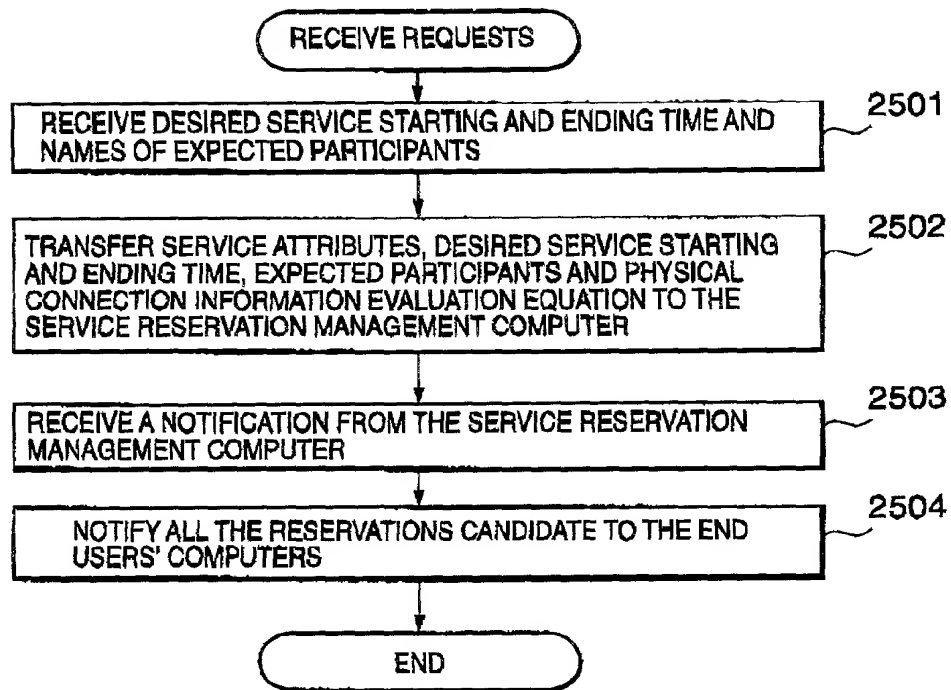
000780" 0E95E950

11/26



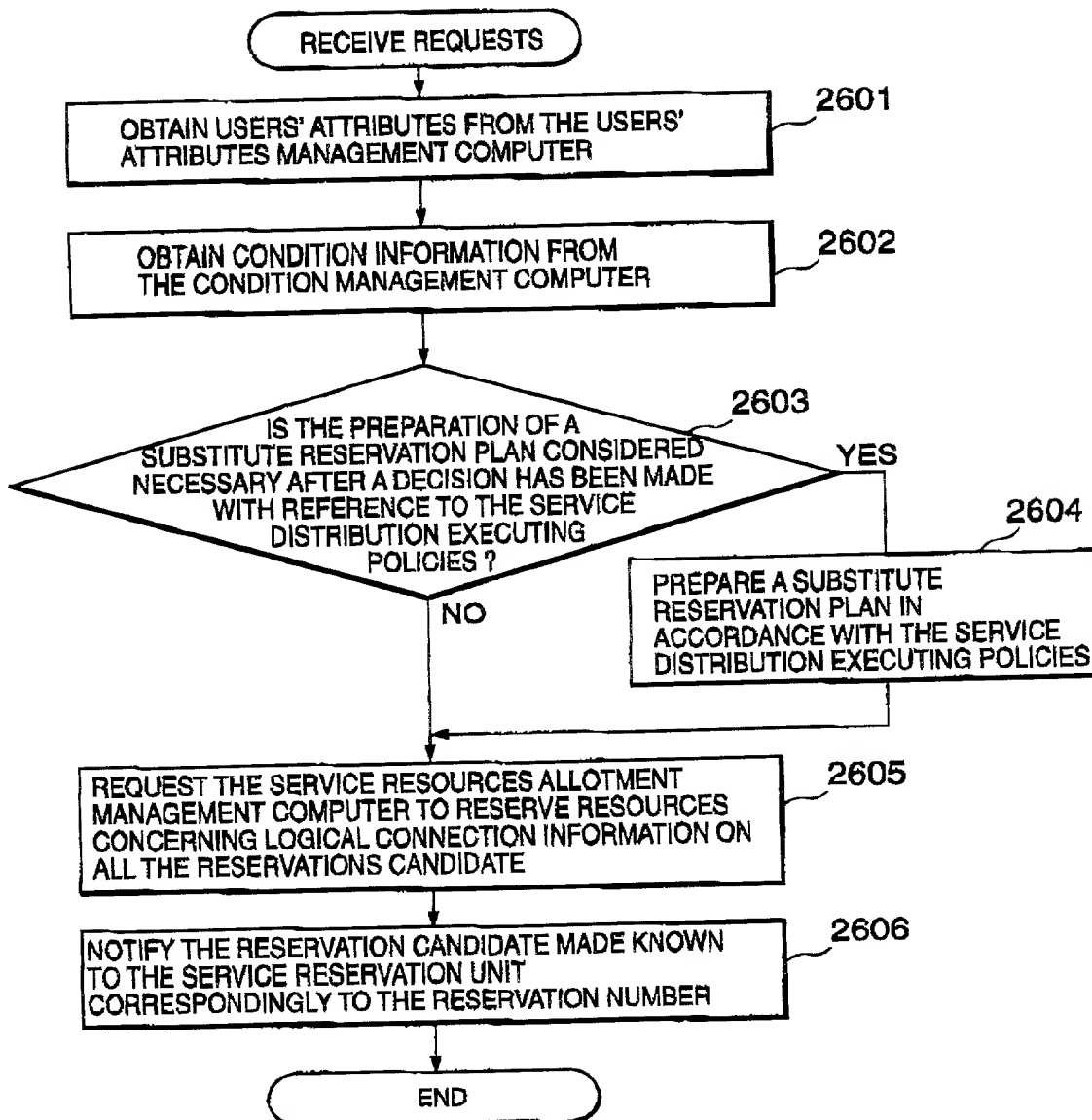
Climatic Data	
Temperature (°C)	25.0
Humidity (%)	75.0
Wind Speed (m/s)	1.5
Pressure (hPa)	1013.25
Soil Moisture (%)	15.0
Light Intensity (lux)	1000.0
CO2 Concentration (ppm)	400.0
NO2 Concentration (ppb)	10.0
O3 Concentration (ppb)	5.0
pH	7.0
EC (µS/cm)	100.0
DO (mg/L)	8.0
TDN (g/L)	0.5
TP (mg/L)	0.1
TKN (mg/L)	0.2
Ammonia (mg/L)	0.1
Nitrate (mg/L)	0.2
Phosphate (mg/L)	0.05
Silica (mg/L)	0.1
Calcium (mg/L)	0.1
Magnesium (mg/L)	0.05
Potassium (mg/L)	0.1
Sulfate (mg/L)	0.1
Chloride (mg/L)	0.1
Fluoride (mg/L)	0.01
Iron (mg/L)	0.01
Zinc (mg/L)	0.001
Copper (mg/L)	0.0001
Manganese (mg/L)	0.001
Nickel (mg/L)	0.0001
Lead (mg/L)	0.0001
Cadmium (mg/L)	0.0001
Mercury (mg/L)	0.0001
Barium (mg/L)	0.01
Sodium (mg/L)	0.1
Strontium (mg/L)	0.001
Barium (mg/L)	0.001
Vanadium (mg/L)	0.0001
Chromium (mg/L)	0.0001
Molybdenum (mg/L)	0.0001
Cobalt (mg/L)	0.0001
Niobium (mg/L)	0.0001
Antimony (mg/L)	0.0001
Bismuth (mg/L)	0.0001
Thallium (mg/L)	0.0001
Lead (mg/L)	0.0001
Mercury (mg/L)	0.0001
Cadmium (mg/L)	0.0001
Strontium (mg/L)	0.0001
Barium (mg/L)	0.0001
Vanadium (mg/L)	0.0001
Chromium (mg/L)	0.0001
Molybdenum (mg/L)	0.0001
Cobalt (mg/L)	0.0001
Niobium (mg/L)	0.0001
Antimony (mg/L)	0.0001
Bismuth (mg/L)	0.0001
Thallium (mg/L)	0.0001
Lead (mg/L)	0.0001
Mercury (mg/L)	0.0001
Cadmium (mg/L)	0.0001
Strontium (mg/L)	0.0001
Barium (mg/L)	0.0001
Vanadium (mg/L)	0.0001
Chromium (mg/L)	0.0001
Molybdenum (mg/L)	0.0001
Cobalt (mg/L)	0.0001
Niobium (mg/L)	0.0001
Antimony (mg/L)	0.0001
Bismuth (mg/L)	0.0001
Thallium (mg/L)	0.0001
Lead (mg/L)	0.0001
Mercury (mg/L)	0.0001
Cadmium (mg/L)	0.0001
Strontium (mg/L)	0.0001
Barium (mg/L)	0.0001
Vanadium (mg/L)	0.0001
Chromium (mg/L)	0.0001
Molybdenum (mg/L)	0.0001
Cobalt (mg/L)	0.0001
Niobium (mg/L)	0.0001
Antimony (mg/L)	0.0001
Bismuth (mg/L)	0.0001
Thallium (mg/L)	0.0001
Lead (mg/L)	0.0001
Mercury (mg/L)	0.0001
Cadmium (mg/L)	0.0001
Strontium (mg/L)	0.0001
Barium (mg/L)	0.0001
Vanadium (mg/L)	0.0001
Chromium (mg/L)	0.0001
Molybdenum (mg/L)	0.0001
Cobalt (mg/L)	0.0001
Niobium (mg/L)	0.0001
Antimony (mg/L)	0.0001
Bismuth (mg/L)	0.0001
Thallium (mg/L)	0.0001
Lead (mg/L)	0.0001
Mercury (mg/L)	0.0001
Cadmium (mg/L)	0.0001
Strontium (mg/L)	0.0001
Barium (mg/L)	0.0001
Vanadium (mg/L)	0.0001
Chromium (mg/L)	0.0001
Molybdenum (mg/L)	0.0001
Cobalt (mg/L)	0.0001
Niobium (mg/L)	0.0001
Antimony (mg/L)	0.0001
Bismuth (mg/L)	0.0001
Thallium (mg/L)	0.0001
Lead (mg/L)	0.0001
Mercury (mg/L)	0.0001
Cadmium (mg/L)	0.0001
Strontium (mg/L)	0.0001
Barium (mg/L)	0.0001
Vanadium (mg/L)	0.0001
Chromium (mg/L)	0.0001
Molybdenum (mg/L)	0.0001
Cobalt (mg/L)	0.0001
Niobium (mg/L)	0.0001
Antimony (mg/L)	0.0001
Bismuth (mg/L)	0.0001
Thallium (mg/L)	0.0001
Lead (mg/L)	0.0001
Mercury (mg/L)	0.0001
Cadmium (mg/L)	0.0001
Strontium (mg/L)	0.0001
Barium (mg/L)	0.0001
Vanadium (mg/L)	0.0001
Chromium (mg/L)	0.0001
Molybdenum (mg/L)	0.0001
Cobalt (mg/L)	0.0001
Niobium (mg/L)	0.0001
Antimony (mg/L)	0.0001
Bismuth (mg/L)	0.0001
Thallium (mg/L)	0.0001
Lead (mg/L)	0.0001</

Climatic Data	
Temperature (°C)	25.0
Humidity (%)	75.0
Wind Speed (m/s)	1.5
Pressure (hPa)	1013.25
Soil Moisture (%)	15.0
Light Intensity (lux)	1000.0
CO2 Concentration (ppm)	400.0
NO2 Concentration (ppm)	0.05
O3 Concentration (ppm)	0.02
pH	7.0
EC (µS/cm)	150.0
DO (mg/L)	8.0
TDN (g/L)	0.5
TP (mg/L)	0.1
TK (mg/L)	0.2
TS (mg/L)	0.3
TSR (mg/L)	0.4
TSR (mg/L)	0.5
TSR (mg/L)	0.6
TSR (mg/L)	0.7
TSR (mg/L)	0.8
TSR (mg/L)	0.9
TSR (mg/L)	1.0
TSR (mg/L)	1.1
TSR (mg/L)	1.2
TSR (mg/L)	1.3
TSR (mg/L)	1.4
TSR (mg/L)	1.5
TSR (mg/L)	1.6
TSR (mg/L)	1.7
TSR (mg/L)	1.8
TSR (mg/L)	1.9
TSR (mg/L)	2.0
TSR (mg/L)	2.1
TSR (mg/L)	2.2
TSR (mg/L)	2.3
TSR (mg/L)	2.4
TSR (mg/L)	2.5
TSR (mg/L)	2.6
TSR (mg/L)	2.7
TSR (mg/L)	2.8
TSR (mg/L)	2.9
TSR (mg/L)	3.0
TSR (mg/L)	3.1
TSR (mg/L)	3.2
TSR (mg/L)	3.3
TSR (mg/L)	3.4
TSR (mg/L)	3.5
TSR (mg/L)	3.6
TSR (mg/L)	3.7
TSR (mg/L)	3.8
TSR (mg/L)	3.9
TSR (mg/L)	4.0
TSR (mg/L)	4.1
TSR (mg/L)	4.2
TSR (mg/L)	4.3
TSR (mg/L)	4.4
TSR (mg/L)	4.5
TSR (mg/L)	4.6
TSR (mg/L)	4.7
TSR (mg/L)	4.8
TSR (mg/L)	4.9
TSR (mg/L)	5.0
TSR (mg/L)	5.1
TSR (mg/L)	5.2
TSR (mg/L)	5.3
TSR (mg/L)	5.4
TSR (mg/L)	5.5
TSR (mg/L)	5.6
TSR (mg/L)	5.7
TSR (mg/L)	5.8
TSR (mg/L)	5.9
TSR (mg/L)	6.0
TSR (mg/L)	6.1
TSR (mg/L)	6.2
TSR (mg/L)	6.3
TSR (mg/L)	6.4
TSR (mg/L)	6.5
TSR (mg/L)	6.6
TSR (mg/L)	6.7
TSR (mg/L)	6.8
TSR (mg/L)	6.9
TSR (mg/L)	7.0
TSR (mg/L)	7.1
TSR (mg/L)	7.2
TSR (mg/L)	7.3
TSR (mg/L)	7.4
TSR (mg/L)	7.5
TSR (mg/L)	7.6
TSR (mg/L)	7.7
TSR (mg/L)	7.8
TSR (mg/L)	7.9
TSR (mg/L)	8.0
TSR (mg/L)	8.1
TSR (mg/L)	8.2
TSR (mg/L)	8.3
TSR (mg/L)	8.4
TSR (mg/L)	8.5
TSR (mg/L)	8.6
TSR (mg/L)	8.7
TSR (mg/L)	8.8
TSR (mg/L)	8.9
TSR (mg/L)	9.0
TSR (mg/L)	9.1
TSR (mg/L)	9.2
TSR (mg/L)	9.3
TSR (mg/L)	9.4
TSR (mg/L)	9.5
TSR (mg/L)	9.6
TSR (mg/L)	9.7
TSR (mg/L)	9.8
TSR (mg/L)	9.9
TSR (mg/L)	10.0



13/26

FIG. 13




```

graph TD
    Start([RECEIVE REQUESTS]) --> 2701[RECEIVE THE LOGICAL CONNECTION INFORMATION]
    2701 --> 2702[TAKE OUT DISCRIMINATORS OF THE PARTICIPATING USERS FROM THE LOGICAL CONNECTION INFORMATION, AND MAKE INQUIRIES AT THE USERS' ATTRIBUTES MANAGEMENT COMPUTER ABOUT NETWORK CONNECTION INFORMATION ON THE RELATIVE END USERS' COMPUTERS TO OBTAIN THE SAME INFORMATION]
    2702 --> 2703[SEARCH FOR A DATA ACCUMULATION COMPUTER AND A DATA PROCESSING COMPUTER WHICH CORRESPOND TO THE LOGICAL CONNECTION INFORMATION]
    2703 --> 2704[ENUMERATE USABLE PROSPECTIVE COMBINATIONS]
    2704 --> 2705[SELECT ONE COMBINATION CANDIDATE OUT OF THE ENUMERATED COMBINATIONS IN ACCORDANCE WITH THE PHYSICAL CONNECTION INFORMATION]
    2705 --> 2706[FORM A RESERVATION NUMBER, AND STORE THE PHYSICAL CONNECTION INFORMATION ON THE RESERVATION MANAGEMENT TABLE]
    2706 --> 2707[NOTIFY THE RESERVATION NUMBER TO THE SERVICE RESERVATION MANAGEMENT COMPUTER]
    2707 --> End([END])
  
```

15/26

FIG. 15

IF(TVConfBridge3.failure && startTime < currentTime+1) then deny	2620
IF(TVConfBridge3.load(startTime,endTime) > 95% && Users,HighestGrade=CORPORATION) then accept, offer(TVConfBridge3.search(load < 95% h-1,+1))	2621
IF(TVConfBridge3.load(startTime,endTime) > 95% && Users,HighestGrade=INDIVIDUAL, GENERAL,) then deny, offer (TVConfBridge3.search(load < 95% h-4,+4))	2622
IF(TVConfBridge3.load(startTime,endTime) > 95% && Users,HighestGrade=INDIVIDUAL, ECONOMY) then deny, offer (TVConfBridge3.search(load < 80% h-4,+4))	2623
IF(TVConfBridge3.load(startTime,endTime) > 80% && Users,HighestGrade=CORPORATION) then accept	2624
IF(TVConfBridge3.load(startTime,endTime) > 80% && Users,HighestGrade=INDIVIDUAL, GENERAL) then accept, offer (TVConfBridge3.search(load < 80% h-4,+4))	2625
IF(TVConfBridge3.load(startTime,endTime) > 80% && Users,HighestGrade=INDIVIDUAL, ECONOMY) then deny, offer (TVConfBridge3.search(load < 80% h-4,+4))	2626
IF(TVConfBridge3.load(startTime,endTime) > 50% && Users,HighestGrade=CORPORATION) then accept	2627
IF(TVConfBridge3.load(startTime,endTime) > 50% && Users,HighestGrade=INDIVIDUAL, GENERAL) then accept	2628
IF(TVConfBridge3.load(startTime,endTime) > 50% && Users,HighestGrade=INDIVIDUAL, GENERAL) then accept, offer (TVConfBridge3.search(load < 80% h-4,+4))	2629
Default: accept	2630

16/26

FIG. 16

5402		5403	5404	5405	5406	5407	2650
LOGICAL RESOURCES	PHYSICAL RESOURCES DISCRIMINATOR	COMPUTER DISCRIMINATOR	NAME OF ATTRIBUTE 1	ATTRIBUTE VALUE 1	NAME OF ATTRIBUTE 2	ATTRIBUTE VALUE 2	
MPEG2CacheOnDemand	MPEG2CacheOnDemand_1	MPEGCache_1	RECEIVABLE NUMBER OF RESERVATION	10	MAXIMUM TRANSFER SPEED	6Mbps	MAXIMUM NUMBER OF CLIENTS
MPEG2CacheBroadcast	MPEG2CacheBroadcast_1	MPEGCache_2	RECEIVABLE NUMBER OF RESERVATION	5	MAXIMUM TRANSFER SPEED	6Mbps	MAXIMUM NUMBER OF CLIENTS
MPEG1CacheOnDemand	MPEG1Cache_1	MPEGCache_1	RECEIVABLE NUMBER OF RESERVATION	10	MAXIMUM TRANSFER SPEED	1.5Mbps	MAXIMUM NUMBER OF CLIENTS
MPEG1CacheBroadcast	MPEG1Cache_1	MPEGCache_2	RECEIVABLE NUMBER OF RESERVATION	5	MAXIMUM TRANSFER SPEED	1.5Mbps	MAXIMUM NUMBER OF CLIENTS
							5
							100
							20
							20

17/26

FIG. 17

5502		5503		5504		5505		5506		5507	
LOGICAL RESOURCES	PHYSICAL RESOURCES DISCRIMINATOR	COMPUTER DISCRIMINATOR	NAME OF ATTRIBUTE 1	ATTRIBUTE VALUE 1	NAME OF ATTRIBUTE 2	ATTRIBUTE VALUE 2	NAME OF ATTRIBUTE 3	ATTRIBUTE VALUE 3			
TVConfBrid ge1	TVConfBridg e1_1	TVConfBridge1	RECEIVABLE NUMBER OF RESERVATION	10	MAXIMUM NUMBER OF CONNECTION	10	MAXIMUM TRANSFER SPEED	6Mbps			
TVConfBrid ge1	TVConfBridg e1_2	TVConfBridge2	RECEIVABLE NUMBER OF RESERVATION	5	MAXIMUM NUMBER OF CONNECTION	5	MAXIMUM TRANSFER SPEED	6Mbps			
TVConfBrid ge2	TVConfBridg e2_1	TVConfBridge1	RECEIVABLE NUMBER OF RESERVATION	10	MAXIMUM NUMBER OF CONNECTION	10	MAXIMUM TRANSFER SPEED	1.5Mbps			
TVConfBrid ge2	TVConfBridg e2_2	TVConfBridge2	RECEIVABLE NUMBER OF RESERVATION	5	MAXIMUM NUMBER OF CONNECTION	5	MAXIMUM TRANSFER SPEED	1.5Mbps			
TVConfBrid ge3	TVConfBridg e3_1	TVConfBridge1	RECEIVABLE NUMBER OF RESERVATION	10	MAXIMUM NUMBER OF CONNECTION	10	MAXIMUM TRANSFER SPEED	100Kbps			
TVConfBrid ge3	TVConfBridg e3_2	TVConfBridge2	RECEIVABLE NUMBER OF RESERVATION	5	MAXIMUM NUMBER OF CONNECTION	5	MAXIMUM TRANSFER SPEED	100Kbps			
SuperImpose 1	SuperImpose 1_1	SuperImpose 1	RECEIVABLE NUMBER OF RESERVATION	10	MAXIMUM IMAGE TRANSFER SPEED	6Mbps					
SuperImpose 2	SuperImpose 2_1	SuperImpose2	RECEIVABLE NUMBER OF RESERVATION	10	MAXIMUM IMAGE TRANSFER SPEED	1.5Mbps					

2660

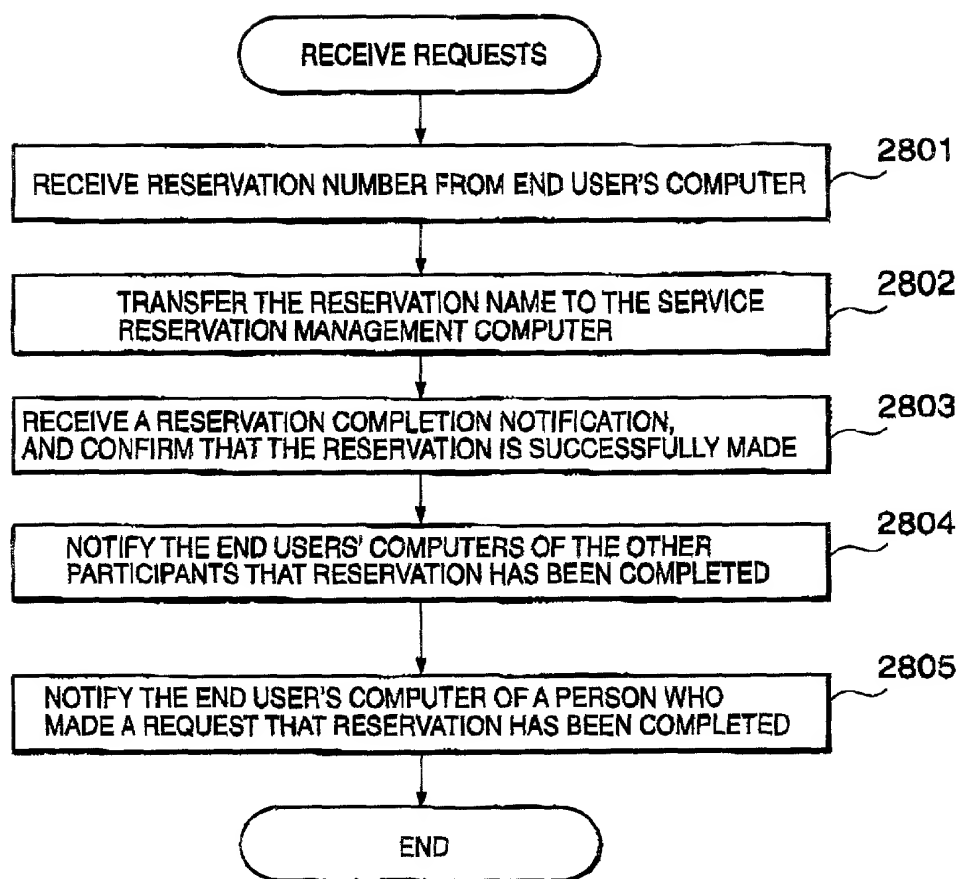
2660

FIG. 18

RESERVATION NUMBER	RESERVATION TYPE	PHYSICAL CONNECTION INFORMATION	STARTING DATE AND TIME	ENDING DATE AND TIME
1001	REAL RESERVATION	<div> <div>MPEGCache 1</div> <div>52Mbps</div> <div>133.144.100.10</div> </div>	1999/4/1 11:50	1999/4/1 11:5
1002	REAL RESERVATION	<div> <div>133.144.98.80</div> <div>5Mbps</div> <div>SuperImpose1_1</div> <div>5Mbps</div> <div>MPEGCache 1</div> </div>	1999/4/1 12:00	1999/4/1 13:00
1003	TENTATIVE RESERVATION	<div> <div>100kbps</div> <div>133.144.98.85</div> <div>100kbps</div> <div>TVConfBridge3_1</div> <div>100kbps</div> <div>133.144.99.5</div> <div>100kbps</div> <div>133.144.99.10</div> </div>	1999/4/1 9:00	1999/4/1 10:30
1004	TENTATIVE RESERVATION	<div> <div>100kbps</div> <div>133.144.98.85</div> <div>100kbps</div> <div>TVConfBridge3_2</div> <div>100kbps</div> <div>133.144.99.5</div> <div>100kbps</div> <div>133.144.99.10</div> </div>	1999/4/1 9:00	1999/4/1 10:30
1005	TENTATIVE RESERVATION	<div> <div>100kbps</div> <div>133.144.98.85</div> <div>100kbps</div> <div>TVConfBridge3_2</div> <div>100kbps</div> <div>133.144.99.5</div> <div>100kbps</div> <div>133.144.99.10</div> </div>	1999/4/1 10:30	1999/4/1 12:00

19/26

FIG. 19



000780 0E9E950

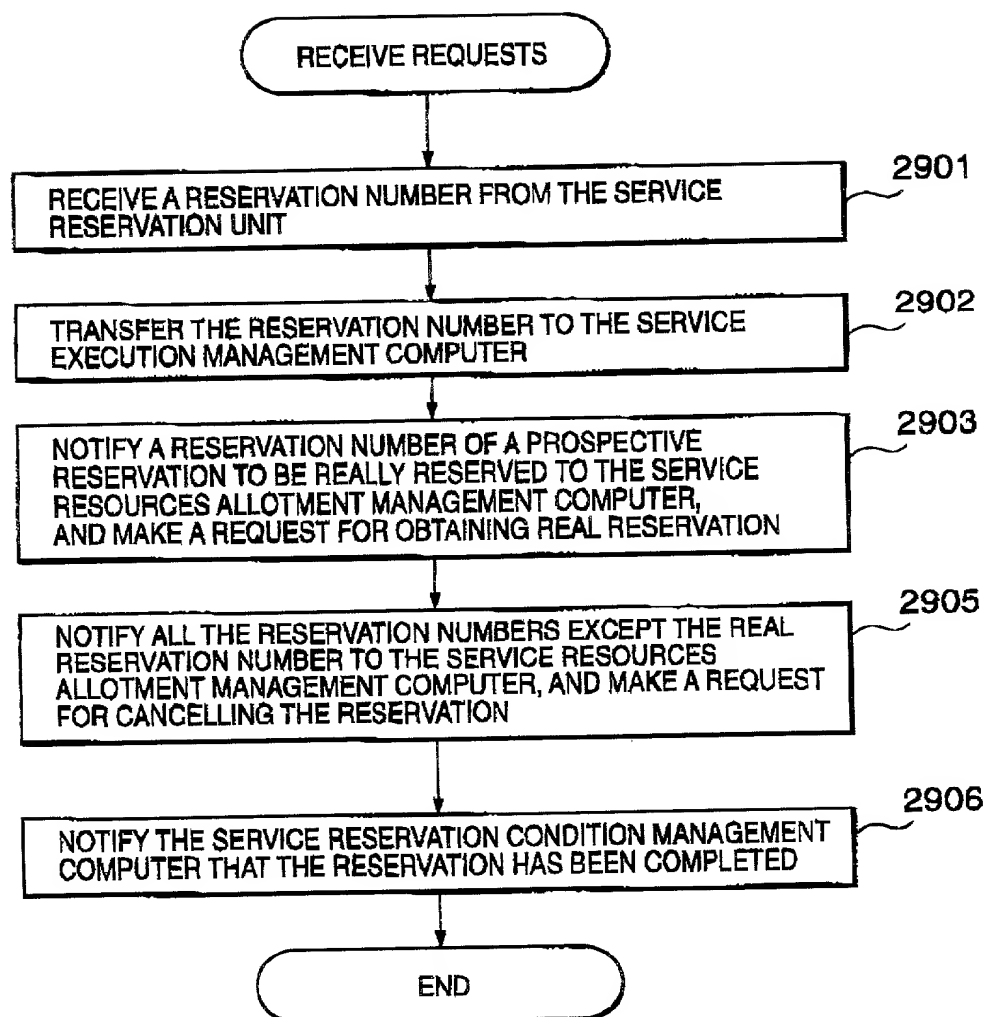
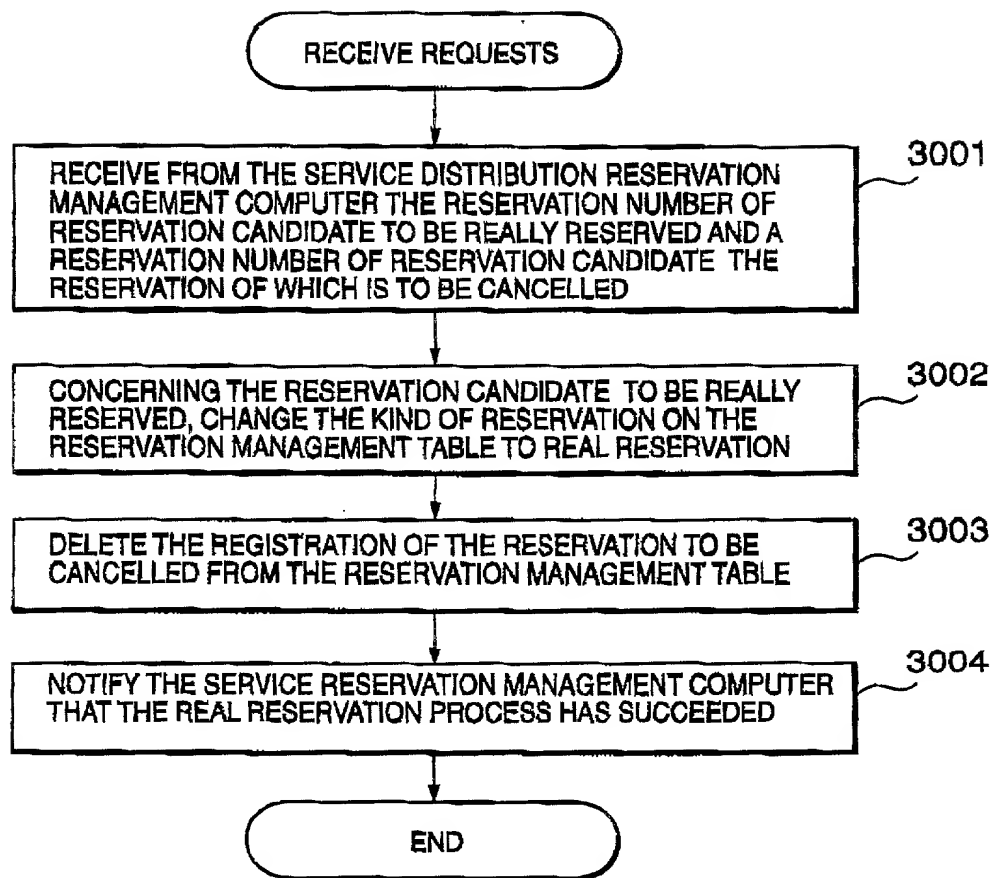
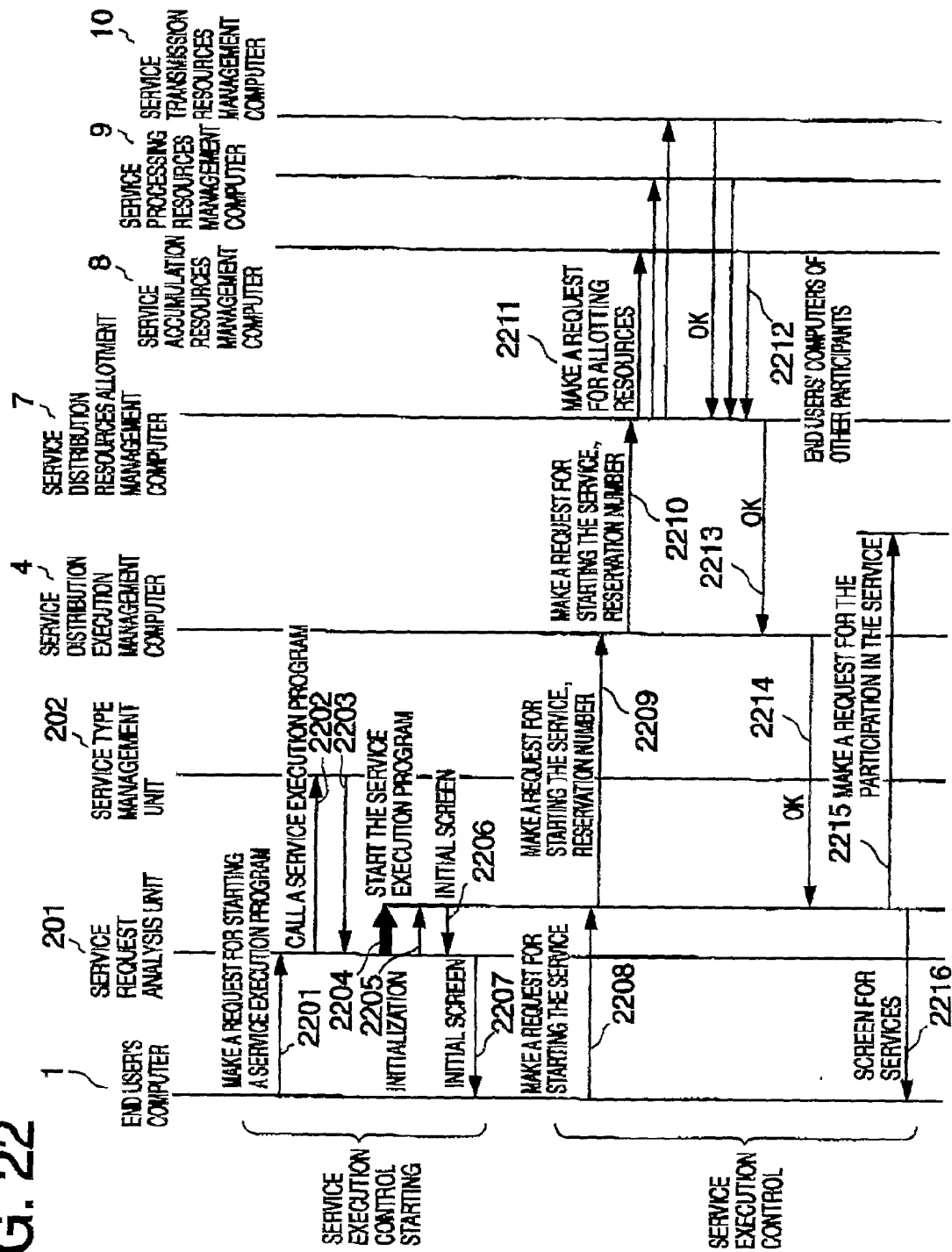


FIG. 21



22/26

FIG. 22



000780" 06558960

```
graph TD; A([RECEIVE REQUESTS]) --> B[RECEIVE SERVICE DISCRIMINATOR FROM AN END USER'S COMPUTER 3101]; B --> C[OBTAIN INFORMATION ON THE SERVICE EXECUTION CONTROL UNIT FROM THE KIND OF SERVICE MANAGEMENT UNIT 3102]; C --> D[START THE SERVICE EXECUTION CONTROL UNIT 3103]; D --> E[INITIALIZE THE SERVICE EXECUTION CONTROL UNIT, TAKE OUT AN INITIAL SCREEN AND TRANSFER THE INITIAL SCREEN TO THE END USER'S COMPUTER 3104]; E --> F([END]);
```

RECEIVE REQUESTS

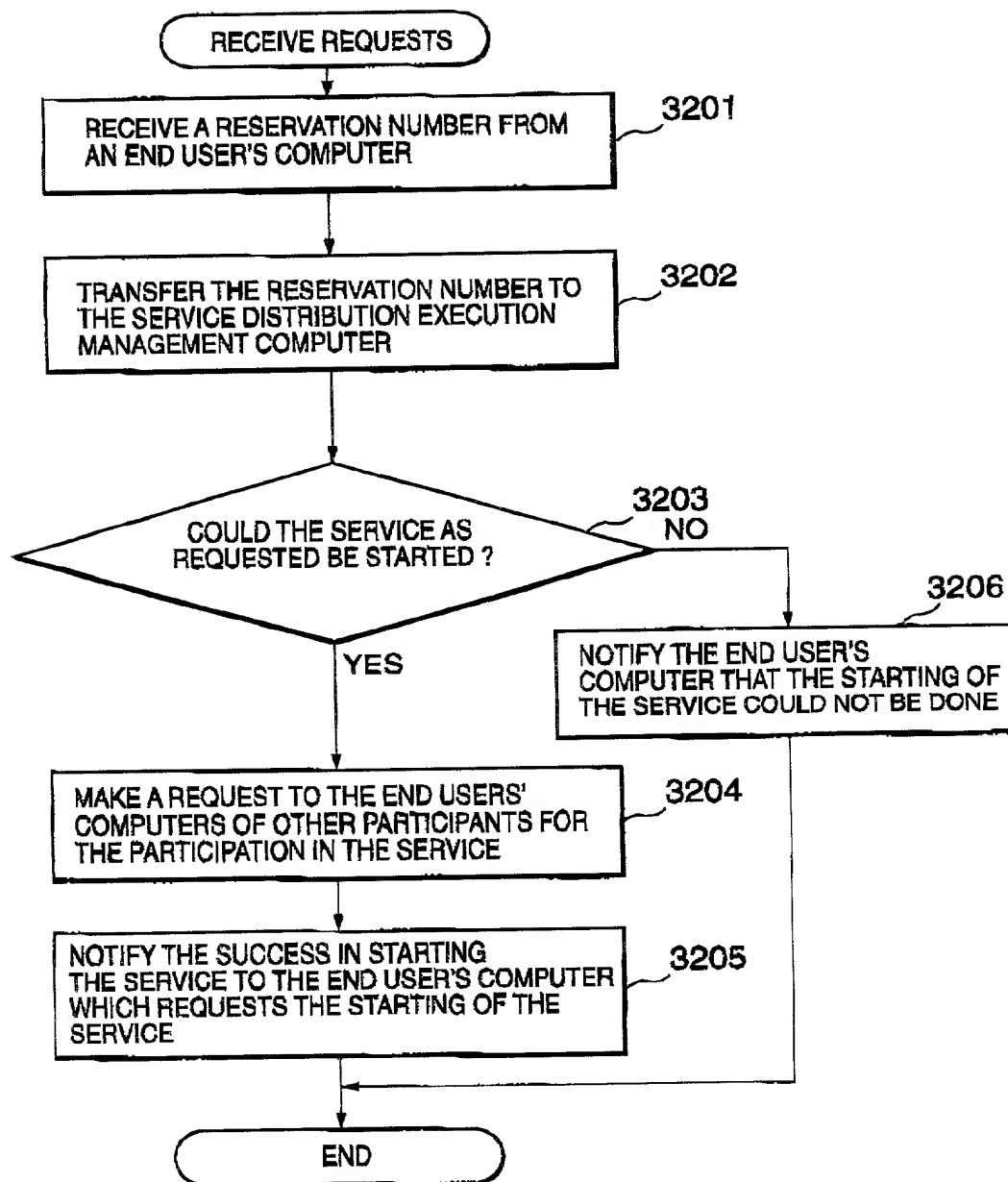
RECEIVE SERVICE DISCRIMINATOR FROM AN END USER'S COMPUTER 3101

OBTAIN INFORMATION ON THE SERVICE EXECUTION CONTROL UNIT FROM THE KIND OF SERVICE MANAGEMENT UNIT 3102

START THE SERVICE EXECUTION CONTROL UNIT 3103

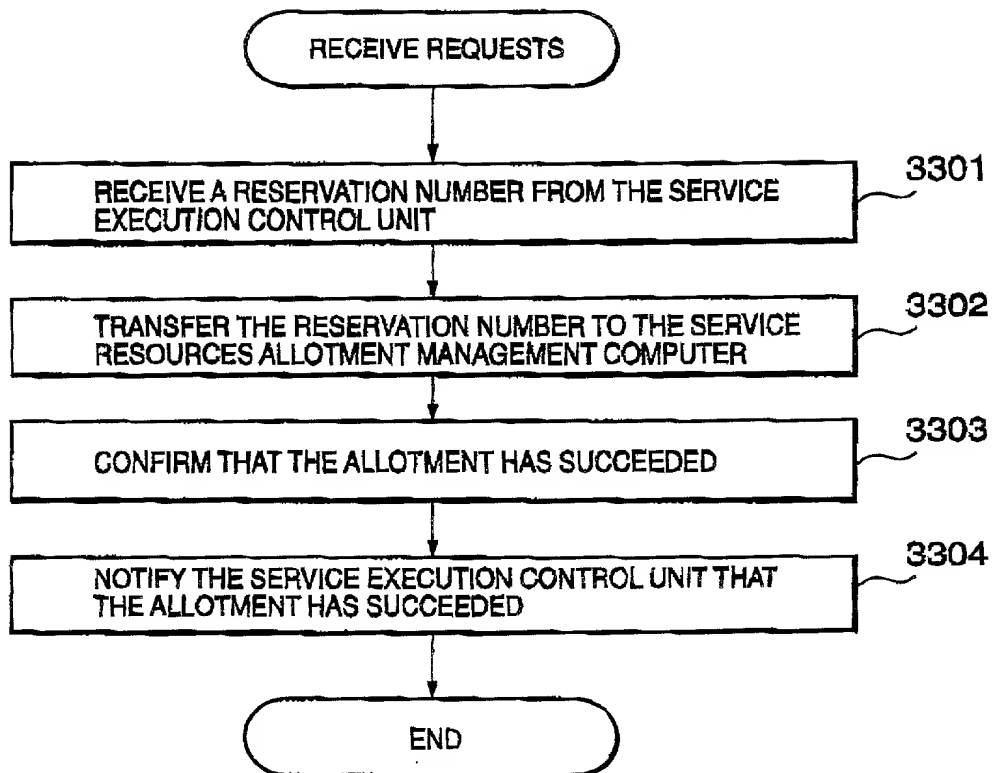
INITIALIZE THE SERVICE EXECUTION CONTROL UNIT, TAKE OUT AN INITIAL SCREEN AND TRANSFER THE INITIAL SCREEN TO THE END USER'S COMPUTER 3104

END



25/26

FIG. 25



000780"0E95E960

